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VEHICLES AND ADAPTIVE AIDS for elderly and disabled drivers



A BUYER'S GUIDE

Canada

VEHICLES AND ADAPTIVE AIDS for elderly and disabled drivers

A BUYER'S GUIDE

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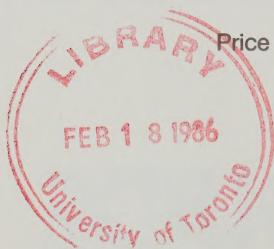
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INTRODUCTION

This buyer's guide was prepared by James F. Hickling Management Consultants Limited in conjunction with the Transportation Development Centre to help elderly and disabled persons choose a vehicle and related equipment that correspond to their distinctive needs.

An estimated two million Canadians experience disabilities that make it difficult or impossible for them to drive. Among those capable or potentially capable of driving, some require a specialized vehicle, while others can use a conventional car outfitted with one or more adaptive devices. Most, however, need only a certain amount of "design awareness" to choose the vehicle that is right for them.

To be sure, a properly chosen vehicle can add a whole new dimension to the life of someone whose mobility is restricted by a disability. An improperly chosen vehicle, on the other hand, can cause as many problems as it solves. For example, a car may not provide a wheelchair user with enough space between the front and back seats to load a wheelchair. Or, options or controls that would allow someone with a missing or weak limb to more easily manoeuvre a vehicle might not have been installed. In these and other instances, the vehicle could soon begin to seem more of a burden than an asset. The information provided here will help the elderly or disabled driver to make a more informed purchase of a vehicle and adaptive driving aids.

THE 5-STEP GUIDE TO BETTER DRIVING

STEP 1

**DISABILITIES
THEIR EFFECTS
ON DRIVING AND
SUGGESTED ADAPTIVE
DRIVING AIDS**

Matching adaptive equipment to specific disabilities and driving needs

STEP 2

**INVENTORY
OF ADAPTIVE
DRIVING AIDS**

Adaptive equipment: what is available and where you can find it

STEP 3

**VEHICLE DESIGN
CONSIDERATIONS**

Things to consider when buying a vehicle

STEP 4

**VEHICLE
COMPARISON
CHARTS**

Ratings of 170 cars, vans and light trucks

STEP 5

**COMPARISON
CHECKLIST FOR
VEHICLE BUYERS**

A checklist to help you evaluate and compare models

HOW TO USE THIS GUIDE

This guide does not tell you which vehicle to buy or how to equip it. Every disabled person has different needs. Your particular mix of physical strengths and weaknesses, skills and impairments, sets you apart from other individuals. Except in certain circumstances, no one can tell you exactly which car to buy and with which options and adaptive equipment. Only you can ultimately make that decision.

The guide is organized as a logical series of steps that can help you to make your personal selection.

Step 1 is designed to help you match your disability to the kind of driving aids you are most likely to need. Some of these aids come as either standard or optional equipment with most cars, trucks or vans. Others are adaptive equipment specially designed for specific disabilities.

If you decide that you need special adaptive equipment, you can refer to **Step 2**, which lists and describes the various types of special adaptive equipment available, their manufacturers, and the distributors in your area.

Step 3 begins with the key points a disabled person should consider when shopping for a vehicle. You should read this section in order to best make use of the vehicle rating charts that follow.

A vehicle rating survey was conducted for 170 cars, trucks and vans. The rating charts, included in **Step 4**, can help you to narrow the range of possible choices to a few vehicles. You should then proceed to test-drive the most promising cars, trucks or vans, to find the model that best corresponds to your distinctive needs.

Step 5 consists of a detachable comparison checklist that can be used when actually shopping for a vehicle.

Of course, a purchasing decision will be made not only from the standpoint of a disability, but on the basis of all of the considerations involved in choosing a car (price, appearance, performance, fuel economy, safety, etc.). Once again, the final choice in any of these matters must be yours: **You** are in the driver's seat.

The final section provides a guide to disabled drivers' education courses and financial assistance programs available in each Canadian province and territory.

STEP 1

DISABILITIES, THEIR EFFECTS ON DRIVING AND SUGGESTED ADAPTIVE DRIVING AIDS



DISABILITIES, THEIR EFFECTS ON DRIVING, AND SUGGESTED ADAPTIVE DRIVING AIDS

This section of the guide provides the elderly or disabled consumer with a quick way to identify the kinds of driving aids or techniques he or she may wish to consider. Disabilities are identified in terms of specific symptoms (for example, lack of range of motion — shoulders); the driving problems commonly associated with these disabilities are identified as well.

The driving aids listed for each disability and driving problem are only suggestions: each driver will have to decide whether a particular option or piece of equipment is really required. The inventory of adaptive aids in Step 2 identifies the various aids available today and their manufacturers and distributors. It is also recommended that prospective buyers seek the professional advice of a qualified driving instructor before making their purchase. See "Assistance Programs and Driver Education" on page 00.

Below is a list of the disabilities addressed in this guide:

- 1.** left leg missing or non-functional
- 2.** right leg missing or non-functional
- 3.** both legs missing or non-functional
- 4.** short legs
- 5.** left arm below elbow missing or non-functional
- 6.** right arm below elbow missing or non-functional
- 7.** both arms below elbow missing or non-functional
- 8.** left arm above elbow missing or non-functional
- 9.** right arm above elbow missing or non-functional
- 10.** both arms above elbow missing or non-functional
- 11.** short arms
- 12.** lack of manual dexterity
- 13.** both arms and both legs disabled (quadriplegia)
- 14.** lack of range of motion — arms
- 15.** lack of range of motion — shoulders
- 16.** lack of range of motion — neck
- 17.** lack of range of motion — hips
- 18.** small body size
- 19.** lack of body balance



20. general muscle weakness
21. poor muscle control
22. poor endurance, fatigue
23. poor vision
24. aging

The information presented on the following pages is adapted, with the kind permission of the Driver Education Section of the Ohio Department of Education, from their publication Driver Education for the Handicapped — Curriculum Guide.

1. LEFT LEG MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to use left foot on dimmer switch and parking brake.
2. Possible inability to maintain body balance (depending on extent of amputation).
3. Inability to use clutch.
4. Possible interference of leg or foot with driving mechanisms.

Suggested Driving Aids:

1. Hand-operated dimmer switch and parking brake (or centre-console parking brake).
2. Shoulder or chest safety belts; arm rests.
3. Automatic transmission.
4. A restraint (e.g., belt, loop, or barrier of some type) to keep the disabled leg or foot from lodging against the brake or accelerator.

2. RIGHT LEG MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to use standard accelerator.
2. Possible inability to maintain body balance (depending on extent of amputation).
3. Awkwardness in using left foot dimmer switch (because left foot occupied with brake and accelerator).
4. Inability to use clutch.
5. Possible interference of leg or foot with driving mechanisms.

Suggested Driving Aids:

1. Left-foot accelerator.
2. Shoulder or chest safety belts; arm rests.
3. Hand-operated dimmer switch.
4. Automatic transmission.
5. A restraint (e.g., belt, loop, or barrier) to keep the disabled leg or foot from lodging against the brake or accelerator.

3. BOTH LEGS MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to use brake and accelerator.
2. Inability to use dimmer switch or foot-operated parking brake.
3. Possible difficulty maintaining body balance (depending on extent of amputation or paralysis).
4. Possible interference of legs with driving controls.
5. Possible difficulty entering car.

Suggested Driving Aids:

1. Hand-operated brake and accelerator, necessitating automatic transmission.
2. Hand-operated dimmer switch and parking brake.
3. Special seat structure, cushions, arm rests, or chest/shoulder safety belts.
4. A restraint (e.g., belt, loop, or barrier) to keep legs clear of brake and accelerator.
5. A grab bar or strap; transfer board. A swivel seat may be helpful.

Comments:

Drivers who have lost sensation in their legs may be unaware of such dangers as burns from the heater or sun-heated seats. They may unintentionally turn an ankle in a position that cuts off circulation; their feet may get in the way of controls, etc. Special education may be needed to help guard against such accidents. See "Assistance Programs and Driver Education" on page 79.

4. SHORT LEGS

Effects on Driving:

1. Inability to reach brake and accelerator.
2. Inability to operate dimmer switch and parking brake.

Suggested Driving Aids:

1. a. Extension of the brake and accelerator pedals of up to 5 cm (2"). If a longer extension is needed, hand controls (as for (3) BOTH LEGS MISSING OR NON-FUNCTIONAL) might be more effective.
b. A back cushion; a seat cushion.
2. Hand-operated dimmer switch and parking brake.



5. LEFT ARM BELOW ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Difficulty performing hand-over-hand steering manoeuvres.
2. Inability to shift gears while steering.
3. Difficulty grasping and pulling left-hand dash controls.

Suggested Driving Aids:

1. Power steering and spinner knob attached to the steering wheel, mounted at the 3 or 4 o'clock position, for the sound hand.
2. Automatic transmission.
3. Rings attached to left-hand dash controls.

6. RIGHT ARM BELOW ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Difficulty performing hand-over-hand steering manoeuvres.
2. Difficulty shifting gears while steering.
3. Difficulty grasping and pulling right-hand dash controls.

Suggested Driving Aids:

1. Power steering and spinner knob attached to steering wheel, mounted at 8 or 9 o'clock position for the sound hand.
2. Rings attached to right-hand dash controls.
3. Although a driver with a right-hand hook should be able to operate either a standard or an automatic shift lever, automatic transmission is easier.

7. BOTH ARMS BELOW ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to grasp and turn regular steering wheel.
2. Difficulty grasping and pulling dashboard controls.
3. Difficulty grasping and pulling or turning other small devices or controls in the car (door locks and handles, window cranks, ashtray, glove compartment, radio knobs, etc.).

Suggested Driving Aids:

A. WITH A PROSTHESIS

1. Driving ring or steering knob attached to the steering wheel, on the side of the dominant arm.

2. Rings attached to the dashboard controls.
3. a. Ring attachments for any small devices or controls difficult to operate.
b. Electric door locks and power windows.

B. NO PROSTHESIS

1. The driver should be able to manoeuvre the steering wheel using two arms; if not, an extended/telescopic steering column is recommended.
2. Dashboard extensions.
3. Power door locks and power windows; keyless ignition.

8. LEFT ARM ABOVE ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to perform hand-over-hand steering manoeuvres.
2. Inability to use left-hand turn signal.
3. Difficulty reaching left-hand dashboard controls.
4. Difficulty releasing left-hand parking brake.
5. Inability to shift gears on standard transmission while right arm is occupied.
6. Difficulty sounding horn while right hand is occupied.

Suggested Driving Aids:

1. Steering knob or other steering aid mounted on the right.
2. Right-hand extension turn signal lever or electrical signal.
3. Right-hand extensions on left-hand dashboard controls, or dashboard models with right-hand controls.
4. Parking brake release adapted for use by the left foot or the right hand.
5. Automatic transmission.
6. Horn ring that can be reached without letting go of the steering knob.

9. RIGHT ARM ABOVE ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to perform hand-over-hand steering manoeuvres.
2. Difficulty reaching right-hand dashboard controls (lights, wipers, etc.).
3. Possible difficulty turning ignition key.
4. Inability to use right-hand automatic gear shift.
5. Inability to shift gears on standard transmission.

Suggested Driving Aids:

1. Steering knob or other device mounted on the left.
2. Left-hand extensions for dashboard controls and/or dashboard model with some left-hand controls.
3. Ignition key reachable with the left hand while parked, or adapted for the left hand.
4. Left-hand extension of gear shift lever.
5. Automatic transmission.

10. BOTH ARMS ABOVE ELBOW MISSING OR NON-FUNCTIONAL

Effects on Driving:

1. Inability to use conventional steering wheel.
2. Inability to operate standard transmission.
3. Inability to operate turn signal, ignition key, gear selector, dash controls, horn, parking brake release.

Suggested Driving Aids:

1. Foot steering controls: a metal boot mounted on a circular disk in the floor-board, by the left foot.
2. Automatic transmission.
3. a. Gear selector on the floor, by the right foot.
b. Horn and turn signal on the floor, or remote controls for knee operation.
c. Ignition, lights, windshield wipers, and emergency brake underneath and behind instrument panel.

11. SHORT ARMS

Effects on Driving:

1. Inability to reach dashboard controls and ignition.
2. Possible inability to reach gear shift and turn signal.
3. Difficulty using conventional steering wheel.
4. Difficulty performing many hand-over-hand steering manoeuvres.

Suggested Driving Aids:

1. Back cushion; extensions for dashboard controls and ignition key.
2. Extensions on the gear shift lever and turn signal lever.
3. Steering column extension on adjustable steering wheel.
4. Small steering wheel (requiring fewer revolutions to turn the wheel).



12. LACK OF MANUAL DEXTERITY

Effects on Driving:

1. Limited ability to grasp and turn steering wheel.
2. Limited ability to grasp and operate ignition key and dashboard controls.
3. Difficulty releasing hand-operated parking brake.

Suggested Driving Aids:

1. Tri-post, "V", or cuff-type steering wheel spinner.
2. a. Ignition key holder.
b. Rings or other adaptations on dashboard controls.
3. Foot-operated parking brake, or extension loop on the parking brake handle.

13. BOTH ARMS AND BOTH LEGS DISABLED (QUADRIPLEGIA)

Effects on Driving:

1. Inability to use brake, accelerator, dimmer switch, foot-operated parking brake, and clutch.
2. Limited ability to grasp and turn steering wheel.
3. Limited ability to maintain body balance.
4. Possible limited ability to see full field of traffic.
5. Difficulty entering car and storing wheelchair.
6. Possible fatigue.
7. Difficulty using dashboard controls, ignition key and seat belt fixture.

Suggested Driving Aids:

- A. LOW LEVEL QUADRIPLEGIA — ABLE TO TRANSFER INTO CAR
 1. a. Hand-operated brake, accelerator, dimmer switch (may be combined with horn switch).
b. Extension and loop on parking brake.
c. Automatic transmission and parking brake.
 2. "Quad" steering device ("V" shaped grip, semicircle, steering pin, or tripost, as necessary); wrist cuff, wrist splint or elbow support.
 3. Chest harness safety belt, arm rests, cushions.
 4. Side view mirrors and full-range rear view mirrors if neck rotation is limited.
 5. a. Two-door car.
b. Grab bar or strap, transfer board, wheelchair hoist.



6. a. Instruction in avoiding and dealing with fatigue.
b. Driving lessons planned with awareness of student's stamina range.
7. Ignition key holder and adaptations of seat belt fixtures and other small devices.

Comments:

If range of arm motion is a problem, a small steering wheel may be required. Lever type controls (operated by the hand or head) are available for dashboard controls. Power equipment (seats, windows, wheelchair hoist, etc.) is helpful, as is an adjustable, telescopic steering wheel.

B. HIGH LEVEL QUADRIPLEGIA — DRIVING IN VAN FROM WHEELCHAIR

1. a. Quad hand controls, which may have dimmer-plus-horn and signals incorporated or servo controls. The dimmer switch can be controlled remotely by the elbow.
b. Electric parking brake.
c. Automatic transmission.
2. a. "Quad" steering device, if necessary (see 13.1.2 above).
b. Adjustable height, position and diameter of steering wheel, as well as adjustable steering column position; "low" or "zero" effort steering with emergency back-up.
3. a. Wheelchair restraint — a safety locking device to prevent the wheelchair from moving.
b. Passenger restraint could include a lap belt, chest harness, lateral supports attached to the wheelchair, and a special quad seat belt.
4. Power pan to lower wheelchair driver so vision is not obscured by roof line of van, or wheel channels (not suitable for electric wheelchairs); special mirrors.
5. a. Automatic wheelchair lift (may also need raised doors and roof for head clearance).
b. Wheelchair restraint.
6. a. Instruction in avoiding and dealing with fatigue.
b. Air conditioning, cruise control, easy/zero effort controls.
7. Keyless ignition, or ignition relocated to an accessible area; dashboard controls converted to a special quad console with toggle switches and/or dashboard control extensions.

14. LACK OF RANGE OF MOTION – ARMS

Effects on Driving:

1. Limited ability to turn steering wheel.
2. Possible difficulty operating dashboard controls, gear shift, turn signal, and/or parking brake release.

Suggested Driving Aids:

1. Extension of the steering column and a small steering wheel complete with a spinner knob.
2. Extensions on or adaptations of dashboard controls, gear shift lever, turn signal and parking brake release.

15. LACK OF RANGE OF MOTION – SHOULDERS

Effects on Driving:

1. Limited ability to turn steering wheel.
2. Possible difficulty operating dashboard controls, gear shift, ignition key and parking brake release.
3. Limited ability to see the full field of traffic.

Suggested Driving Aids:

1. a. Extension of steering wheel column and small wheel with spinner knob; or
b. Foot-operated steering (see case 10: BOTH ARMS ABOVE ELBOW MISSING OR NON-FUNCTIONAL) if limitation is severe.
2. Extensions or adaptations of dashboard controls, gear shift lever, turn signal and ignition switch, and foot-operated parking brake.
3. Convex or 48° rear and side view mirrors.

16. LACK OF RANGE OF MOTION – NECK

Effects on Driving:

1. Limited ability to see the full field of traffic.

Suggested Driving Aids:

1. Convex or 48° rear and side view mirrors.

17. LACK OF RANGE OF MOTION – HIPS

Effects on Driving:

1. Difficulty using brake and accelerator.
2. Difficulty using dimmer switch and parking brake.
3. Difficulty using clutch.
4. Possible difficulty turning to watch rear view while backing up.
5. Possible difficulty entering and leaving car.

Suggested Driving Aids:

1. Hand-operated brake and accelerator.
2. Hand-operated dimmer switch and parking brake.
3. Automatic transmission.
4. Convex or 48° rear view mirror.
5. Grab bar or strap (swivel seats are also helpful); power seats.

18. SMALL BODY SIZE

Effects on Driving:

1. Insufficient height to see out windows.
2. Inability to reach brake, accelerator, dimmer switch, and parking brake.

If arms are short:

3. Inability to reach dashboard controls and ignition key.
4. Difficulty performing many hand-over-hand steering manoeuvres.

Suggested Driving Aids:

1. Specially constructed seat to raise the driver.
2. Extensions on brake, accelerator, dimmer switch and parking brake or hand-operated controls.
3. Extensions for dashboard controls and ignition.
4. Steering spinner knob.

19. LACK OF BODY BALANCE

Effects on Driving:

1. Danger of falling to one side in turns or sudden motions.

Suggested Driving Aids:

1. Specially constructed seat for balance; arm rests; cushions and/or shoulder or chest safety belts.

20. GENERAL MUSCLE WEAKNESS

Effects on Driving:

1. Difficulty turning steering wheel and applying pressure to brake and clutch.
2. Difficulty applying and releasing parking brake.

Suggested Driving Aids:

1. Power steering, power brakes, and automatic transmission.
2. Adaptation of parking brake (for the stronger limb).

Comments:

Multiple sclerosis, amyotrophic lateral sclerosis, and muscular dystrophy are degenerative diseases – that is, they become worse with time. Persons with these diseases should become familiar with the various types of adaptive driving equipment available (see Step 2) so that they can plan and prepare for driving aid requirements as and when they arise.

21. POOR MUSCLE CONTROL

Effects on Driving:

1. Difficulty controlling steering wheel.
2. Uncontrolled involuntary movement, or spasms of rigidity may present too great a danger for driving.

Suggested Driving Aids:

1. Tri-post, "V" or cuff-type steering wheel spinner.
2. Persons suffering from uncontrolled muscle activity that is potentially dangerous for driving should consult a driver education specialist (see page 79) before going on the road. If spasms occur in the legs only and hand controls are used, the legs can be secured close to the seat.

22. POOR ENDURANCE, FATIGUE

Effects on Driving:

1. Inability to drive for long periods of time without rest.

Suggested Driving Aids:

1. Power steering, power brakes, cruise control.

Suggested Driving Practices:

These drivers should always plan short trips with frequent rest stops.

Comments:

Drivers with a pulmonary disease condition might require oxygen equipment in the car at all times.

23. POOR VISION

Effects on Driving:

1. Double vision (diplopia).
2. Reduced peripheral vision.
3. Reduced depth perception.
4. Decreased ability to adapt to low illumination and recover from exposure to glaring headlights.



Suggested Driving Practices:

1. Patch the poorer eye.
2. Always turn eyes and head enough to check blind spots.
3. Drive defensively.
4. Avoid night driving.

Comments:

Since vision is such an important factor in driving, it should be checked regularly.

24. AGING

Effects on Driving:

1. Failing vision.
2. Slowness of thinking processes, lack of alertness.
3. Episodes of confusion and declining memory.
4. Loss of physical strength leading to slow reaction time.
5. Side effects of some drugs may be detrimental to driving.

Suggested Driving Practices:

If an older driver can avoid those situations where driving is difficult or fatiguing, particularly long journeys, night driving, rush-hour traffic and high-speed freeway driving, there may be no reason for this person to give up driving. Also refer to cases 22 and 23.

INVENTORY OF ADAPTIVE DRIVING AIDS

INVENTORY OF ADAPTIVE DRIVING AIDS

ENTRY AND EXIT

Adapted Key Holder: A variety of key holders for various limitations of hands and arms are available. A key holder attached to a belt or key holder provides for easier grasp.

Wheelchair Lifts: There are three types of lifts available: electric, gravity or hydraulic. They are either automatic or semi-automatic, and operate using rotary or swing down mechanisms. Size and weight of the wheelchair are important factors in determining which type of lift will be best suited.

Cartop Wheelchair Loader: This loader features push button operation to automatically lift a standard conventional wheelchair on top of the car under a weather-resistant cover.

Wheelchair Loader (in car): The lift is installed on either the passenger or driver side of the car. It holds the wheelchair in place until it is lowered by the loader, which lifts and stores the chair behind the driver's seat.

Trunk Loader: This consists of an electric host attached to the car bumper that holds the wheelchair in place until it is lowered by the loader, which then loads the wheelchair into the trunk.

Bumper Wheelchair Loader: This wheelchair loader fits onto the rear of the trunk and can be either hand or power operated. To make use of these loaders, you must be able to walk from the rear of the car to the car door, or have someone assist you.

Automatic Door Openers: These are available for vans with sliding or swing doors and consist of separate switches in the van interior for a single door or a remote control switch. In the more expensive models, two remote controls or magnetically activated switches are available.

Transfer Boards: These are used to move a person from one place to another out of their own or a variety of transfer seats are available (transfer boards, overhead handle above the doorway, etc.)

Wheelchair Ramp: There are movable ramps for use with vans or any other vehicle.



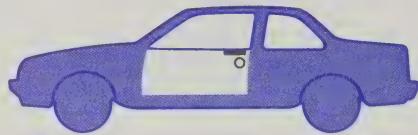
INVENTORY OF ADAPTIVE DRIVING AIDS

This section presents a descriptive inventory of the various kinds of adaptive equipment available to the disabled driver. The inventory is organized into the following six categories:

- entry and exit aids
- seating aids and restraints
- steering aids
- control levers
- accelerating and braking aids and
- miscellaneous aids (cushions, mirrors, alert devices)

Also included are two charts (p. 26 and p. 30) matching the adaptive equipment or driving aid to its manufacturer(s). Addresses and telephone numbers are then provided for those who may wish to obtain additional information directly from the manufacturer. Finally, the names of Canadian distributors, by province, are provided.

ENTRY AND EXIT



Adapted Key Holder: A variety of key holders for various limitations of hand use are available for the outside door and for the ignition; the rigid holder provides for easier grasp.

Wheelchair Lift: Several types of lifts are available: electric, gravity or hydraulic. They are either automatic or semi-automatic, and operate using rotary or swing-down mechanisms. Size and weight of the wheelchair are important considerations when you are selecting a lift.

Cartop Wheelchair Loader: This loader features push-button operation to automatically fold and store a conventional wheelchair on top of the car under a weather-resistant cover.

Wheelchair Loader (in car): The lift is installed on either the passenger or driver side of any full-sized two-door automobile. A switch activates the loader, which lifts and stores the chair behind the driver's seat.

Trunk Loader: This consists of an electric hoist attached to the car bumper. It can be used to load a powered scooter or a wheelchair. Manual loaders are also available.

Bumper Rack Loader: This wheelchair loader fits onto the rear of the trunk and can be either hand or power operated. To make use of these loaders, you must be able to walk from the rear of the car to the car door, or have someone with you.

Automatic Door Openers: These are available for vans with sliding or swing doors and consist of separate switches in a control box (or a single key holder for sequential operations). For those unable to manipulate keys, remote control or magnetically activated switches are available.

Transfer Assists: For those persons unable to transfer in and out of the car easily on their own, a variety of transfer assists are available (transfer boards, overhead handle above the doorway, etc.).

Wheelchair Ramps: These are movable ramps for use with vans or any object with two or three steps.



SEATING AIDS AND RESTRAINTS



Torso Restraints: When driving a van from a wheelchair, chest harness and/or lateral trunk supports may be used, together with lap belts and wheelchair restraints, for those with diminished trunk musculature and balance.

Power Driving Seat: A four- or six-way power seat base (front to rear travel, vertical travel for height adjustment and swivel) facilitates a driver's self-transfer from wheelchair to driver's seat and allows for optimal positioning for driving.

Power Pan: The power pan is designed to accommodate the disabled driver who cannot transfer from wheelchair to seat without assistance and must drive from a wheelchair. It allows the driver who sits high in his or her wheelchair to lower the line of vision 6 cm to 15 cm (2½"-6"), by automatically lowering the vehicle floor in the driver's station.

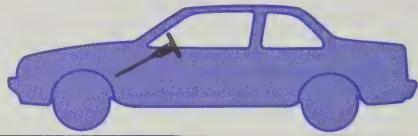
Power Wheelchair Restraint: This quick lock and release system for the wheelchair enables the disabled driver to quickly and easily secure his or her chair in the proper driving position.

Manual Wheelchair Restraint: This model can be used by a wheelchair driver who can physically operate a restraint without power controls, or by a wheelchair passenger.

Wheel Wells: These channels are installed in a vehicle floor to lower the wheelchair driver, thereby correcting visibility problems caused by height.

Removable Seat Base: This is a detachable seat, usually mounted on casters. It allows for easy conversion of the driver's station for a wheelchair driver. It stores in the rear of the van when not in use.

STEERING AIDS



Steering Column Extension: This extension brings the steering wheel 5 to 15 cm (2"-6") closer to the wheelchair driver. It provides extra leg room and compensates for reduced range of movement.

Foot Steering Control: This device transfers control of hand-operated driving functions to foot operation. Auxiliary and secondary vehicle controls are also adapted to foot operation.

Low-Effort Steering: This feature reduces the effort to steer the vehicle by approximately 40%.

Zero-Effort Steering: This reduces the effort required to steer the vehicle by approximately 70%; a back-up steering system is usually recommended. Available for cars or vans with power steering.

Horizontal Steering Column: This motorized, telescoping steering column allows for adjustment of steering in a variety of planes and positions. It adapts to the reach limitations of a driver, and can be positioned for right- or left-hand use.

Deep-Dish Steering Wheel: This device brings the steering wheel rim approximately 10 cm (4") closer to the wheelchair driver and is normally used with a low-effort steering system. It improves wheelchair accessibility to the steering wheel and lessens the range of steering motion.

One-Hand Drive Control System: This steering system is designed for persons with limited or no use of lower extremities, but good strength in one arm and hand. Its main component is a knob through which steering, brake and throttle are activated. Auxiliary switches can be located adjacent to the knob, with toggle switches for convenience.

Steering Spinners: Spinner knobs permit safe operation of the steering wheel by drivers who must steer with one hand, allowing them to remain in contact with the steering wheel at all times. They come in a variety of configurations including an amputee ring, knob, so-called "quad steering cuff", palm grip, tri-pin, and v-grip.



CHART OF ADAPTIVE EQUIPMENT AND ASSOCIATED MANUFACTURERS

MANUFACTURERS
ADVANCED MOBILITY
AMIGO SALES
BLATNIK PRECISION CONTROLS
BRAUN
COLLINS IND.
CREATIVE CONTROLS
CROW RIVER
DRIVEMASTER
GOLDEN BOY
GOLDEN BOY SALES OF CANADA
GRESHAM
HANDICAPS INC.
JURÉE LTÉE
KROEPKE KONTROLS
MOBILITY ENG.
MOBILITY PRODUCTS
NELSON MEDICAL PRODUCTS
PARA INDUSTRIES
REB MFG. INC.
RICON
TARGET INC.
TOPCAT WH/CH CARRIER
TRANSPORT CANADA
TRUJILLO INDUSTRIES INC.
WHEEL CHAIR CARRIER CO.
WELLS-ENBERG
WHIRLTEQ
WRIGHT-WAY

SEATING AIDS AND RESTRAINTS		STEERING AIDS	
Torso Restraints	•	Steering Spinners	•
Power Seats	•	Steering Column Extension	•
Power Pan	•	Low-Effort Steering	•
Power Wheelchair Restraints	•	Zero-Effort Steering	•
Manual Wheelchair Restraints	•	Horizontal Steering Column	•
Wheel Wells	•	Deep-Dish Steering Wheel	•
Removable Seat Base	•	Foot Steering	•
		One-Hand Drive Control System	•

ACCELERATION / BRAKING AIDS



Hand Controls: There are three types of hand controls: push-pull, twist-push, and right angle push (also known as the universal control because it can be used for most disabilities). Recommended for use in vehicles with power brakes and steering, they do not interfere with operation of the vehicle by able-bodied drivers.

Quad Hand Control: This consists of an extra L-shaped attachment for hand control. It is designed for quadriplegic drivers with little wrist or hand strength. It is used with a dimmer switch and horn button.

Hand Clutch Control: The hand clutch is for vehicles with standard transmission. It is recommended for drivers with weakness or loss of use in the left leg only.

Left-Foot Accelerator Pedal: With this pedal, accelerator functions of the vehicle are converted to left-foot use for those with limited or no use of the right foot.

Pedal Extensions: Pedal extensions are used when a driver's legs are too short to reach the gas and brake pedals. These extensions must be light enough not to depress the pedals unless activated, and secure enough not to slip off while the car is being driven. They are often used together with a false floor in order to rest the heels.

Parking-Brake Extension Lever: This lever attaches to a foot-operated parking brake in order to adapt it to hand use. With the lever, the driver still needs a grip sufficient to operate the regular brake and lever.

Servo Controls: These consist of touch controls that provide reduced effort acceleration and/or braking control. Two levels of assistance are available — low effort or zero effort. Emergency back-up systems are available to provide additional safety in case of control failure.

Electric Parking Brake: An electric parking brake offers complete control of the power brake by manipulation of a toggle switch. It is available for cars, vans and trucks. This unit is usually prescribed for individuals who drive a van from their wheelchair.

Portable Hand Controls: These are to be used on a **temporary basis** only: very strong arms are required. They are for persons travelling with rental cars on which hand controls are not available.

CONTROL LEVERS



Right-Hand Directional-Signal Extension Lever: This extension lever attaches to the turn signal lever and crosses to the right side of the steering column for persons unable to use their left hand.

Left-Hand Gear-Selector Extension Lever: This extension lever attaches to the gear shift lever and crosses to the left side of the steering column. It is for use only on vehicles with automatic transmission.

Gear-Selector Extension Lever: This extension lever provides more leverage for disabled persons shifting gears. It can be used with automatic transmission only.

Powered Gear Selector: This allows a disabled driver with an upper extremity dysfunction to shift gears with a toggle switch positioned where most convenient for the driver (usually on the console).

Remote Wiper/Washer, Horn, Dimmer Switch, Directional Signals and Headlights Control: This control relocates these functions to an easily reached location. It allows the driver to use a switch with the hand, elbow, head or knee, whichever is most convenient.

Quad Control: This control provides a handy location for all accessory controls and out-of-reach switches normally found on the dash.

Keyless Ignition: A toggle switch provides remote control of ignition for those drivers unable to manipulate an ignition key.

CHART OF ADAPTIVE EQUIPMENT AND ASSOCIATED MANUFACTURERS

MANUFACTURERS	
ADVANCED MOBILITY	
AMIGO SALES	
BLATNIK PRECISION CONTROLS	•
BRAUN	
COLLINS IND.	
CREATIVE CONTROLS	•
CROW RIVER	•
DRIVEMASTER	•
GOLDEN BOY	
GOLDEN BOY SALES OF CANADA	
GRESHAM	•
HANDICAPS INC.	•
JURÉE LTÉE	•
KROEPKE KONTROLS	•
MOBILITY ENG.	
MOBILITY PRODUCTS	•
NELSON MEDICAL PRODUCTS	•
PARA INDUSTRIES	
REB MFG. INC.	
RICON	
TARGET INC.	•
TOPCAT WH/CH CARRIER	•
TRANSPORT CANADA	
TRUJILLO INDUSTRIES INC.	•
WHEEL CHAIR CARRIER CO.	
WELLS-ENBERG	•
WHIRLTEQ	•
WRIGHTWAY	•

ACCELERATION / BRAKING	
Hand Controls	
Quad Controls	
Hand Clutch Control	
(Left) Foot Accelerator Pedal	•
Pedal Extension	
Parking Brake Extension Levers	
Servo Controls	
Electric Parking Brake	
Portable Hand Controls	

CONTROL LEVERS

(Right) Turn Signal Lever
Remote Direction Signals

(Left) Gear Shift Lever
Gear Selector Extension Lever

Gear Selector Powered

Remote Wiper/Wash

Remote Horn

Remote Dimmer Switch

Quad Console

Keyless Ignition

MISCELLANEOUS AIDS

Cushions

Ventilated seat cushions

Canadian Tire stores

Wedge cushions

OBUS contoured back form

OBUS Forme

1386, Eglinton Ave. W.

Toronto, Ont.

M6Z 2E4

(416) 785-1386

or

local surgical supply dealers

SCHUKRA medico back rest

– features adjustable lumbar section

A.G. Neale Ltd.

1104 Danforth Ave.

Toronto, Ont.

M4J 1M3

(416) 466-5352

or

local surgical supply dealers

SACRO seat

– a fibreglass back & seat insert, with foam covering

A.G. Neale Ltd.

Mirrors

WINK wide-angle mirror

Canadian Tire stores

Convex mirrors for side view

PANAMIRROR

– a rear-view mirror that expands vision to left and right rear, reducing rear-vision blindness

available through local Canadian Automobile Club

Driver Alert Warning Device

– helps guard against falling asleep at the wheel; fits behind the ear

American Automobile Association
Traffic Safety Department
8111 Gatehouse Road
Falls Church, Virginia
22047 U.S.A.

ADDRESSES OF MANUFACTURERS OF DRIVING AIDS

Advanced Mobility

12555 Sherman Drive
North Hollywood, California
91605
(818) 982-1004

The Braun Corporation

1014 South Monticello, PO. Box 310
Winamec, Indiana
46996
(219) 946-6157

Collins Industries Inc.

Box 58
Hutchison, Kansas
67501
(316) 663-4441

Crow River Industries Inc.

7550 Washington Avenue South
Eden Prairie, Minnesota
55344
(612) 944-5010

Amigo Sales Inc.

669 Dixie Highway
Bridgeport, Michigan
48722
(517) 777-0910

Blatnik Precision Controls Inc.

1523 Cota Avenue
Long Beach, California
90813
(213) 436-3275

Creative Controls

1943 Barrett Street
Troy, Michigan
48084
(313) 362-4580

Golden Boy

2556 South Fairview Avenue
Santa Ana, California
92704
(714) 957-8581

Gresham Driving Aids Inc.

PO. Box 405, 30800 Wixom Road
Wixom, Michigan
48096
(313) 624-1533

Jurée Ltée

4830 St. Charles Boulevard
Pierrefonds, Quebec
H9H 3E1
(514) 626-4607

Mobility Engineering & Development

7131 Hayvenhurst Avenue
Van Nuys, California
91406
(818) 785-0958

Drivemaster Corporation

16 Andrews Drive
West Paterson, New Jersey
07424
(201) 785-2204

Golden Boy Sales of Canada Ltd.

4906-93 Avenue
Edmonton, Alberta
T6B 2L6
(403) 468-2697

Handicaps Inc.

4335 South Sante Fe Drive
Englewood, Colorado
80110
(303) 781-2062



Kroepke Kontrols Inc.

104 Hawkins Street
Bronx, New York
10464
(212) 885-1547

Mobility Products & Design Inc.

709 Kentucky Street
Vallejo, California
94590
(707) 642-8967

Nelson Medical Products

5690 Sarah Avenue
Sarasota, Florida
33583-9510
(813) 924-2058

Reb Manufacturing Inc.

P.O. Box 276, R.R. 2
Carey, Ohio
43316-0276
(419) 396-7651

R.J. Mobility Systems Inc.

715 South 5th Avenue
Maywood, Illinois
60153

Target Industries Inc.

55 Newbury Road, P.O. Box 657
East Windsor, Connecticut
06088
(203) 627-5191

Para Industries

950 Moodie Drive, R.R. #7
Nepean, Ontario
K2H 7V2
(613) 726-1828

The Ricon Corporation

11684 Tuxford Street
Sun Valley, California
91352
(818) 768-5890

Smith's Hand Control Service

1420 Brookhaven Drive
Southaven, Mississippi
38671
(601) 393-0540

Topcat Wheelchair Carrier

1355 North Harbour Drive
San Diego, California
92101
(619) 231-2427

Trujillo Industries Inc.

5040 Firestone Boulevard
South Gate, California
90280
(213) 564-7943

The Wheelchair Carrier Corporation

3509 East Canyon Drive
P.O. Box 9328
Phoenix, Arizona
85068
(602) 996-6123

Whirlteq

28 Hubbard Road, Comp. #7
Bates Building
Fredericton, New Brunswick
E3B 6B4
(506) 453-1200

Wells-Enberg Inc.

P.O. Box 6388
Rockford, Illinois
61125
(815) 397-6208

Wright-Way Inc.

175 East Interstate 30
P.O. Box 40907
Garland, Texas
75040
(214) 271-2488



ADAPTIVE EQUIPMENT MANUFACTURERS AND ASSOCIATED DISTRIBUTORS, BY PROVINCE

DISTRIBUTOR

BRITISH COLUMBIA

Labrun Mobility Aids Ltd.
3425 East 32nd Avenue
Vancouver, British Columbia
V6S 1Y8
(604) 263-8482

ALBERTA

Golden Boy Sales of Canada Ltd.
4906-93 Avenue
Edmonton, Alberta
T6B 2L6
(403) 468-2697

Handiwheels

411 Forge Road, S.E.
Calgary, Alberta
T2H 0S9
(403) 258-1855

SASKATCHEWAN

Saskatchewan Council for Crippled Children and Adults
1410 Kilburn Avenue
Saskatoon, Saskatchewan
S7M 0J8
(306) 653-1694

Golden Boy Sales Ltd.

2305 B. Hanselman Place
Saskatoon, Saskatchewan
S7L 6A9
(306) 665-2733

MANUFACTURER REPRESENTED

Advanced Mobility
Drivemaster
Mobility Products & Design Inc.

Crow River

Advanced Mobility
Braun
Mobility Products & Design Inc.

Wright-Way Inc.

Golden Boy, CA



Fort Gary Industries

1572 Elliot Street
Regina, Saskatchewan
SA0 3B1

Crow River

MANITOBA

Grain Master Mfg. Co.

Lot 118, Springfield Road
Winnipeg, Manitoba
R2L 2A5
(204) 224-1697

Crow River

Rehabilitation Engineering Dept.

Health Sciences Centre
59 Pearl Street
Winnipeg, Manitoba
R3E 3L4
(204) 774-6511

Custom made hand controls, foot
accelerator, MPS spinner knobs

ONTARIO

Crecco's Mobility Systems

R.R. #2
Welland, Ontario
L3B 5N5
(416) 892-3519

Braun
Crow River
Drivemaster
Mobility Products & Design
Target Industries

**Crecco's Freedom
Mobility Systems**

7-70 Gibson Drive
Markham, Ontario
L3R 4C2
(416) 475-0144

Target Industries

Therapy Supplies and Rental

128 Sunrise Road
Toronto, Ontario
(416) 752-8885

Braun
Mobility Products & Design
Ricon
Target Industries
Whirlteq

Para Industries

950 Moodie Drive
R.R. #7
Nepean, Ontario
K2H 7V2
(613) 726-1828

Mobility Products & Design

Doncaster Medical

248 Steelcase Road East
Markham, Ontario
L3R 1B2
(416) 474-9300

Braun
Mobility Products & Design
Wells-Enberg Co. Ltd.
Whirlteq

Funcraft Vehicles Ltd.

165 Sheldon Drive
Cambridge, Ontario
N1R 6T8
(519) 621-9310

Braun

Major Medical Supplies

548 Belmont Avenue W.
Kitchener, Ontario
N2M 1N5
(510) 579-6200

Crow River
Whirlteq

Victoria Wheelchair Inc.

1222 Victoria Street N, Unit 7
Kitchener, Ontario
N2B 3E2
(519) 744-4347

Anthony's Auto Wheelchair Lift
Braun

Northland Camper Sales

292 North Cumberland Street
Thunder Bay, Ontario
P7A 4N6
(807) 345-7042

Braun

Amigo Sales Inc.

400 Matheson Blvd. E.
Unit #17
Mississauga, Ontario
L4Z 1N8
(416) 890-1120

Amigo Auto-Lift, etc.



LCR Estates & Investment Ltd.
3319 Oliver Road
Thunder Bay, Ontario
P7B 6C2
(807) 935-2532

Handicaps
Whirlteq
Wells-Enberg

Mitro Industries
750 Little Hill Street
London, Ontario
N5Z 1M9
(519) 433-1896

Whirlteq

QUEBEC

Jurée Ltd.
4830 St. Charles Blvd.
Pierrefonds, Quebec
H9H 3E1
(514) 626-4607

Drivemaster
Mobility Products & Design

**Association des Paraplégiques
du Québec**
4545 Queen Mary Road
Montreal, Quebec
H3W 1E4
(514) 344-3890

**Association des Paraplégiques
du Quebec**
154 Place Vanoise
St-Romuald, Quebec
G6W 5M6
(418) 839-5964

Wright-Way

**Secteur d'évaluation des
capacités de conduite automobile**
L'unité d'apprentissage
Centre François-Charon
525 Boul. Wilfrid-Hamel
Quebec, Quebec
G1M 2S8
(418) 529-9141 Ext. 210, 211



NEW BRUNSWICK

Maritime Orthopedic Co.

P.O. Box 2453, Station "A"
Moncton, New Brunswick
E1C 8J3

Wells-Fargo

Crow River

Konval Kare Ltd.

242 High Street
Moncton, New Brunswick
E1C 6C2
(506) 854-8360

Wells-Fargo

Whirlteq

Whirlteq

28 Hubbard Road, Comp. #7
Bates Building
Fredericton, New Brunswick
E3B 6B4
(506) 457-2044

Target Industries

Whirlteq

NOVA SCOTIA

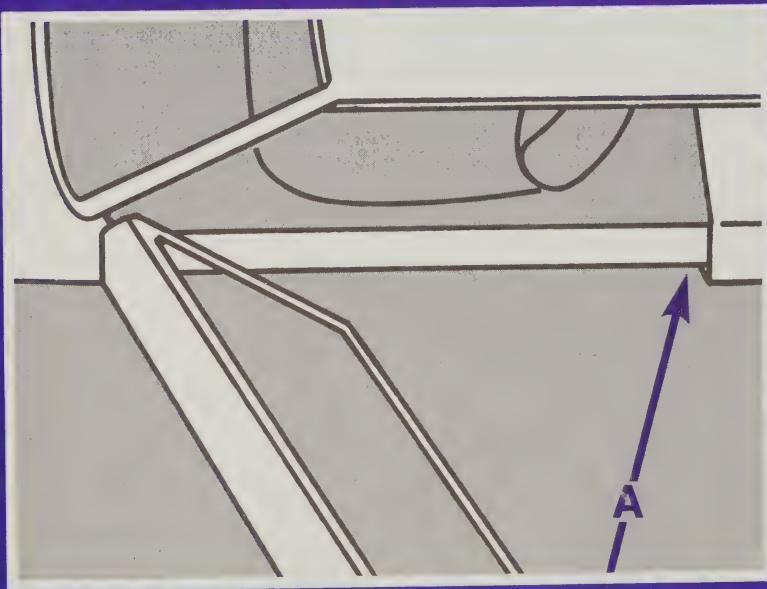
Doncaster Medical

3600 Kempt Road
Halifax, Nova Scotia
B3K 4X8
(902) 454-7474

Whirlteq

STEP 3

VEHICLE DESIGN CONSIDERATIONS





VEHICLE DESIGN CONSIDERATIONS

This part of the guide discusses a number of vehicle design characteristics that are of special importance to disabled and elderly drivers.

AVAILABILITY OF IMPORTANT OPTIONS

- **Automatic transmission:** For many disabled drivers automatic transmission may be a necessity. Certainly, in most cases, it is highly desirable.
- **Power Steering and Brakes:** Once again, most disabled drivers should probably consider both of these features very seriously. They greatly reduce the exertion required to drive. Power steering is particularly important at low speeds, when turning the steering wheel can otherwise be quite difficult.

OTHER OPTIONS TO CONSIDER

The following features are somewhat less important, but still well worth considering:

- power windows
- power seats
- adjustable steering wheel
- cruise control
- air conditioning
- trunk release
- power door locks
- seat rake adjustment
- lumbar support

GETTING IN AND OUT

For many disabled persons, the ability to enter and leave the vehicle easily, as well as move around freely when inside, is a crucial consideration when choosing a vehicle.

Some specific things to consider:

- **Entrance width:** Generally, two-door models offer greater entrance width for the driver than do four-door models. However, some luxury two-door models have surprisingly narrow entrances, or their doors do not open far enough to allow for easy entrance.

- **Door pull:** Some doors are heavier than others. Although two-door models do generally offer wider access, their doors may be considerably heavier, and thus harder to open and close than their four-door counterparts. Again, some luxury models have particularly heavy doors.
- **Door sill height and footwell depth:** The height of the door sill (that is, the distance of the bottom edge of the door entrance to the ground) determines how high you will have to lift your feet to get into the vehicle. Footwell depth (the height of the door sill from the floor of the vehicle) determines how high the feet will have to be lifted when getting out. Persons with weak legs should personally test a vehicle for door sill height and footwell depth, so as to ensure that getting in and out is not too difficult.
- **Equipment access behind the front seat:** Some wheelchair users are able to enter their car and then stow their wheelchair behind the front seat without assistance. This manoeuvre is possible with two-door models. When shopping for a car, wheelchair users should verify that the space between the front seat and the metal post on the right-hand side of the entrance (commonly known as the "B-post") is wide enough to allow them to easily pull their collapsed wheelchair in and out of the car, when sitting in the car. Most wheelchairs range between 254 mm (10") and 330 mm (13") in width when folded. So if the distance between the seat (when pulled forward) and the "B-post" is less than the width of your wheelchair, the vehicle may well prove unsuitable. In the vehicle comparison charts that follow, you can see which vehicles lie within your range. For some two-door models, wheelchair drag-in will only be possible if the car is a hatchback with a fold-down back seat. Wheelchair users should also check the location of seat-belt securing bolts. On some models these can hamper access to the space behind the front seat.
- **Humps, consoles and stickshifts:** Many cars have a hump and/or a console that serves to partially divide the driver's side from the front passenger seat. These can hamper drivers with weak or immobilized legs, when they are attempting to slide from one side of the car to the other. Stickshifts may also be an obstacle.
- **Seatbelts:** Some belts vary radically in style of operation, snugness of fit and ease of use. Prospective buyers should test the seatbelt carefully, checking for ease and comfort in reaching, buckling it up and in short and extended wear and adjustability.

- **Benches vs bucket seats:** Some disabled drivers should consider bench seats rather than bucket seats. Bucket seats can hamper cross-seat slideover for disabled drivers who enter a vehicle by the passenger door.
If you are shopping for a car with bench seats, you will be restricted to mid-size or large North American models.
- **Seat height:** Generally speaking, the higher the seat from the floor of the car, the less effort is required in getting in and out. Only a personal test will allow you to determine your needs.
- **Trunk load height:** In general, the higher the trunk is from the ground, the harder it is to load. Be sure to test the trunk yourself.
- **Trunk load depth:** If the trunkwell is too deep, a disabled driver may have to exert a great deal of effort in lowering or lifting heavy objects into or from the trunk. A deep trunk may also pose difficulties for someone trying to reach in and retrieve stowed objects.
- **Effective trunk volume:** A well designed trunk will have enough usable space to permit a disabled person to stow his or her wheelchair or other mobility aid without difficulty.

OTHER CONSIDERATIONS

Small vs Large Cars

For years, disabled people have complained that only large, expensive and fuel-inefficient cars provided them with the access and interior room they needed. Certainly, in general, smaller cars tend to have less interior room. However, some large cars only **look** roomier from the outside. Their effective interior space may not be superior to many smaller models. In the last few years, smaller cars have, in fact, begun to be designed with more effective interior room than in the past.

Also, many subcompact cars provide equal, or even better accessibility than large "luxury" models. As mentioned earlier, many large cars have surprisingly narrow door openings compared to smaller models, and their doors can be quite heavy.

Smaller cars are also much easier to park, an important consideration for most disabled people who probably want to park as close as possible to their destination. Finally, the lower price tag attached to most smaller cars makes them a particularly attractive purchase for many people.

Smaller cars do, however, tend to come with fewer standard features than larger ones. Also, as mentioned earlier, bench seats are now only provided on larger, North American models.

To sum up, although larger cars, in general, afford roomier interiors, a smaller car's advantages may make it a more attractive purchase for many disabled people. Once again, only a personal inspection will allow you to determine whether you actually require a larger car or, alternatively, whether certain smaller models are just as suitable. The comparison chart will assist you in identifying promising smaller cars.

Visibility

Road visibility does not lend itself to easy measurement. It is up to you to test drive promising models and decide for yourself which one seems to provide the best visibility. But remember to be aware of possible visibility problems and look out for them when making a purchase.

Adaptability to Special Aids

Today, virtually all vehicles can be fitted with special equipment. Some models, however, are more difficult and, therefore, more costly to adapt. Before choosing a particular model, the buyer should consult a local reputable outfitter to find out whether that model is difficult to outfit. This is particularly important if cost is a key consideration.

VAN DESIGN CONSIDERATIONS

You may decide that, on the basis of your disability, lifestyle, etc., a van best suits your needs. Some van models are better suited for structural modification and installation of adaptive equipment than others.

The following guidelines are for your general information only. Specific individual needs should be discussed with a knowledgeable team of driving evaluators (see page 79).

GENERAL GUIDELINES

Vans with a large wheelbase (350.5 cm or 138") are considered to be more adaptable for driving either from a wheelchair or from the van's power seat. A short wheelbase (315 cm or 124") may be less expensive, but it also provides less room for wheelchair manoeuvrability, and less passenger and storage space. The location of the gas tank in the short wheelbase van interferes with the wheelchair driver's power pan. **Neither dual gas tanks nor auxiliary heaters should be factory ordered, unless first cleared with a professional van modifier.**

AVAILABILITY OF IMPORTANT OPTIONS

- **Automatic transmission:** to facilitate driving by individuals who can use only two extremities (preferably no overdrive).



- **Power brakes and steering:** these facilitate control of the vehicle by people who lack full range of motion and/or power in their upper extremities.
- A **heavy duty battery** and **heavy duty alternator** in order to supply adequate power to operate the van with the adaptive devices.
- **Heavy duty suspension** (shocks and springs) for smoother ride.
- A **stabilizer bar** makes for a steadier ride and ensures less lean when lifts are being used.
- **A spare tire.**
- **Air conditioning** (in front only), helps to prevent fatigue and thus represents a safety factor, particularly for quadraplegics with respiratory and temperature regulation problems.
- A **tilt wheel**, if you are keeping the original steering column.
- A **van with windows** in the storage or passenger compartment for better visibility. Tinted or privacy glass will decrease the "gold-fish bowl" effect. Custom bay windows can be added later. If you are ordering cargo doors, glass windows in the doors are also recommended.

FACTORY OPTIONS

- **Doors:** There are two types of cargo doors available from manufacturers, swing doors and sliding doors:
 - A. **Swing door** — A swing door is easier to raise if increased door height is required. It also provides more flexibility, since you can then add bay windows. Finally, a swing door is more reliable and requires less maintenance than a sliding door. A swing door, however, can only be used in conjunction with a fold-out lift.
 - B. **Sliding door** — a sliding door allows for the use of either a fold-out or a swing/rotary lift.
- **Power windows and door locks**
- **Seating:** Drivers planning to transfer from their wheelchair to a four- or six-way power seat may want to consider the "seat delete" option, replacing the standard passenger seat with a captain's chair to match the driver's seat. Seat belts and sun visors are extras with this option.
- **Security lock group:** This is used for locking the gas cap, the inside hood release and the spare tire lock.

- **Cruise control:** This is a factory or dealer-installed option that can be used by disabled drivers who retain the original steering column.

DEALER INSTALLED OPTIONS

- **Plywood subfloor:** If you install a subfloor, the choice of floor covering may depend on its effect upon wheelchair manoeuverability.
- **Insulation package:** This includes insulation for roof and walls.
- **Low mount or special van mirrors.**

Each potential driver should be evaluated personally for the following vehicle controls and equipment by a qualified team that includes a driver's education specialist and a van modification dealer:

- The best mechanical method of opening doors and lowering a lift
- Raised door or raised roof
- Automatic lift
- Driving station — four- or six-way power seat, wheel channels, or power pan
- Wheelchair restraint system
- Controls for acceleration, braking, and steering
- Quad "console", with range of toggle switches to remotely control horn, signals, wiper/washer, dimmer switch, gear shift, etc.
- CB radio

For a description of these options (except the CB radio), and a list of their manufacturers and distributors, refer to STEP 2 of this guide, page 21.

STEP 4

VEHICLE COMPARISON CHARTS

N/A	★★★★★	★★	★★★★★	★
OPT	★★★★★	★★	★★★★★	★
OPT	★★★★★	★★	★★★★★	★
OPT	★★★★★	★★	★★★★★	N/A
OPT	★★★	★★★★★	★★★★★	★
N/A	★★★★★	★★★★★	★★★★★	★
N/A	★★★	★★★★★	★★★★★	★
OPT	★★★	★★★	★★★	★
OPT	★★★	★★★★★	★	★
OPT	★★★	★★★	★	★
STD	★★★	★★★	★★★★★	★
OPT	★★★★★	★★★★★	★★★★★	★

VEHICLE COMPARISON CHARTS

The following charts compare 170 models of 1984 and 1985 cars, trucks and vans on the basis of some of the main factors you might consider when making a purchasing decision. These factors are:

- Price category
- Availability of important options
- Getting in and out
- Using the trunk.

Other design characteristics discussed in the preceding section were not included if they could not be measured and compared on a chart. The prospective buyer can only evaluate such features as interior room and visibility by a test drive. Even the measurements that are provided in these charts are for your **general guidance** only.

ABOUT THE MEASUREMENTS

Passenger vehicles are irregular in shape, and measurements can therefore be misleading. All measurements are approximate, and do not necessarily accord with the manufacturers' specifications. Measurements of openings, seating, storage areas, and so on, are given in terms of the **effective**, that is, usable space; it must be remembered, however, that there is no substitute for personally trying a vehicle.

The following table describes the guidelines used in measuring each vehicle. The accompanying vehicle sketch is designed to help you recognize key areas of concern as you shop around for a vehicle.

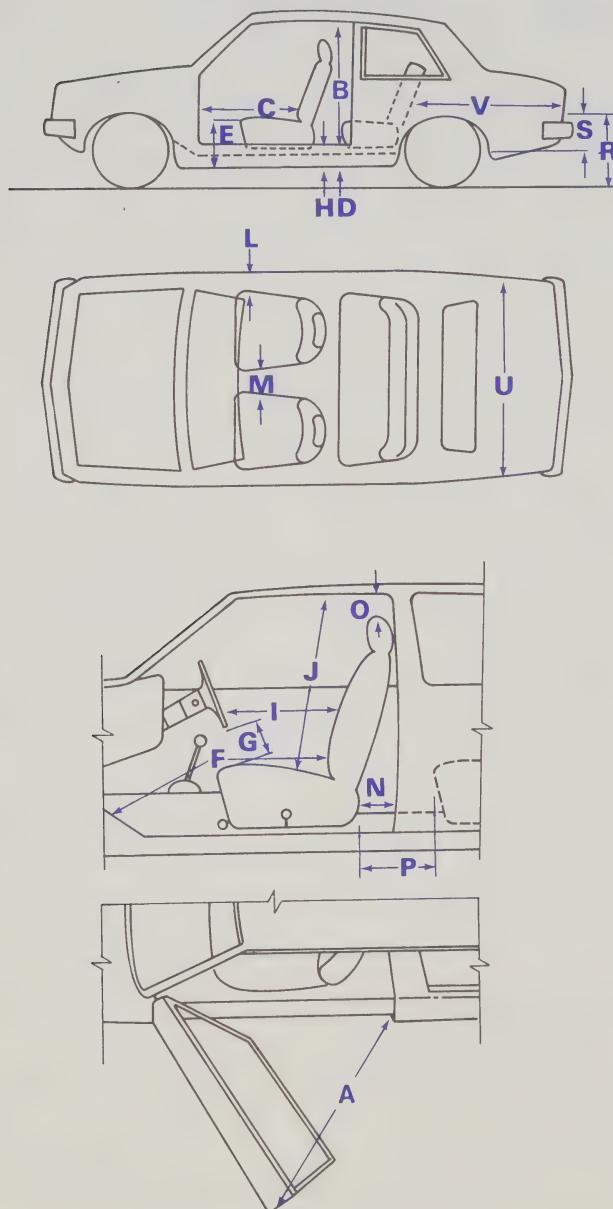
The charts themselves were compiled as follows:

- First, the vehicles were classified from "best" to "worst" in terms of each dimension;
- Then, the dimensional range was divided into five equal groups and the vehicles were assigned from one to five stars, one star always representing the "worst" case;
- For non-dimensional features, a simple "yes/no", "standard/optional/not available" classification is used.

STANDARDS USED IN MEASURING VEHICLE DIMENSIONS

Factor	Source or location of measurement	Reference letter in diagrams
<i>Base Price</i>	From the Canadian Motorist Car Facts (1984 and 1985) with the kind permission of the Canadian Motorist Publishing Co., Ltd.	
<i>Options</i>	Interviews with automobile dealers to confirm status of each option. Double-checked against manufacturer's brochure.	
<i>Front Door Access</i>		
- Door Entrance Width:	From the inside of the door panel to the external sheetmetal of the B post.	A
- Door Height:	From the door sill to the top of the door opening.	B
- Door Width:	Measured across the lower, wider part of the door at approximately seat height.	C
- Sill Height:	From the ground to the highest part of the sill.	D
- Seat Height:	From the sill to the highest part of the seat.	E
- Legroom Length:	From the back of the seat to the edge of the seat and then down to the base of the floor where the heel of the accelerator pedal is located.	F
- Legroom Height:	Measured vertically from the base of the steering wheel to the top of the seat cushion.	G
- Floor Well Depth:	From the top of the sill to the bottom of the floor well.	H
- Seat to Wheel Distance:	From the base of the steering wheel horizontally to the back of the seat cushion.	I

Factor	Source or location of measurement	Reference letter in diagrams
- Headroom:	From the base of the seat cushion to the ceiling at approximately the same angle as the seat back.	J
- Seat/Door Gap:	From the side of the seat cushion to the inside edge of the door.	L
- Seat Gap:	From the edge of one seat to the edge of the other.	M
<i>Non-Distance Data</i>		
- Door Pull Force:	Force required to close the door by a seated driver or passenger using the inside door handle. (Measured in newtons.)	—
<i>Rear Access</i>		
- Seat to B Post:	From the lower back of the seat horizontal to the B-post (on two-door models only).	N
- Headrest to Roof:	Measured vertically with the headrest in the lowered position.	O
- Seat to Seat:	From the front of the rear seat cushion horizontally to the back of the front seat cushion.	P
- Loading Height:	From the ground to the lowest point of the trunk opening.	R
- Trunk Well Depth:	From the lowest part of the trunk opening to the base of the trunk.	S
<i>Trunk Dimensions</i>	Usable minimum and maximum dimensions for the trunk. For hatchbacks, trunk length was measured with the rear seats up and the parcel cover in place.	TUV



SOURCE: Adapted from Ann Darnbrough and Derek Kinrade, Motoring and Mobility for Disabled People, with the kind permission of the Royal Association for Disability and Rehabilitation.

HOW TO MAKE BEST USE OF THESE CHARTS

When examining the charts, you should keep in mind that while price categories and availability of important options are straightforward ("this car costs between \$8,000 and \$12,000, automatic transmission is standard"), measurements for accessibility and trunk use are, again, for your general guidance only. There are no "absolute" standards for either of these two categories: cars are simply compared against each other.

Once you have a shortlist of promising cars, there is no substitute for a personal inspection, using the checklist provided in Step 5.

GUIDE TO VEHICLE COMPARISON CHART

(Wherever star-ratings appear, the more stars the better)

Equipment access behind front seat (2-door models)

- ★ – less than 203 mm
- ★★ – 204 to 254 mm
- ★★★ – 255 to 305 mm
- ★★★★ – 306 to 356 mm
- ★★★★★ – greater than 357 mm

Price class (1984 and 1985)

- \$ – less than \$8,000
- \$\$ – \$8,000 to \$12,000
- \$\$\$ – \$12,000 to \$16,000
- \$\$\$\$ – \$16,000 to \$20,000
- \$\$\$\$\$ – greater than \$20,000

Door pull force

- ★ – greater than 112 N
- ★★ – 90 to 112 N
- ★★★ – 68 to 89 N
- ★★★★ – 45 to 67 N
- ★★★★★ – less than 45 N

Note: 4.5 Newtons (N) equals 1 pound

Door sill height

- ★ – greater than 433 mm
- ★★ – 382 to 432 mm
- ★★★ – 331 to 381 mm
- ★★★★ – 279 to 330 mm
- ★★★★★ – less than 278 mm

Hump

Yes – If hump could impede cross-seat slideover

No – Otherwise

Console

Yes – If console could impede cross-seat slideover

No – Otherwise

Availability of important options

Standard (STD)

Optional (OPT), and Not Available (N/A)

Trunk Loading Height: Ground to lowest point of trunk opening

- ★ – greater than 890 mm
- ★★ – 763 to 889 mm
- ★★★ – 636 to 762 mm
- ★★★★ – 509 to 635 mm
- ★★★★★ – less than 508 mm

Useable trunk volume

- ★ – less than .283 m³
- ★★ – .284 to .566 m³
- ★★★ – .567 to .850 m³
- ★★★★ – .851 to 1.133 m³
- ★★★★★ – greater than 1.134 m³

Legend

- MAKE
- MODEL
- BASE PRICE
- AUTO TR (automatic transmission)
- PWR STR (power steering)
- PWR BRK (power brakes)
- AIR COND (air conditioning)
- PWR WDW (power windows)
- PWR SEAT (power seats)
- ADJ STR W (adjustable steering wheel)
- CRUISE (cruise control)
- TRNK REL (trunk release)
- ENTER WDTH (front door entrance width)
- DR PULL (door pull force)
- REAR OPEN (equipment access)
- SILL HGT (door sill height)
- HUMP
- CONSOLE
- LOAD HGT (trunk loading height)
- TRK VOL (trunk volume)

2-DOOR MODELS (1984)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	R5	\$	N/A	N/A	OPT	N/A	N/A	N/A
AMC/RENAULT	ENCORE	\$	OPT	OPT	STD	OPT	OPT	N/A
AMC/RENAULT	ALLIANCE	\$	OPT	OPT	STD	OPT	OPT	N/A
AMC/RENAULT	FUEGO	\$\$	OPT	STD	STD	OPT	OPT	N/A
AUDI	COUPE	\$\$\$\$\$	OPT	STD	STD	STD	STD	N/A
BMW	318i	\$\$\$\$	OPT	STD	STD	OPT	STD	N/A
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT	OPT
BUICK	SKYLARK	\$\$	OPT	STD	STD	OPT	OPT	OPT
BUICK	CENTURY	\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	REGAL	\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	RIVIERA	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	DE VILLE D'ELEGANCE	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	ELDORADO	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CHEVROLET	CHEVETTE	\$	OPT	OPT	OPT	N/A	N/A	N/A
CHEVROLET	CAVALIER	\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CAVALIER	\$\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CITATION II	\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT	OPT
CHEVROLET	CAMARO	\$\$	OPT	STD	STD	OPT	OPT	OPT
CHEVROLET	MONTE CARLO	\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	LASER	\$\$	OPT	OPT	STD	OPT	OPT	N/A
CHRYSLER	LEBARON	\$\$	STD	STD	STD	OPT	OPT	OPT
DODGE	CHARGER	\$	OPT	OPT	STD	OPT	N/A	N/A
DODGE	DAYTONA	\$\$	OPT	OPT	STD	OPT	OPT	N/A
DODGE	ARIES	\$	OPT	OPT	STD	OPT	OPT	OPT
DODGE	600	\$\$	OPT	STD	STD	OPT	OPT	OPT
FORD	ESCORT	\$	OPT	OPT	OPT	OPT	N/A	N/A
FORD	EXP	\$\$	OPT	OPT	STD	OPT	N/A	N/A
FORD	TEMPO	\$	OPT	OPT	STD	OPT	OPT	OPT
FORD	MUSTANG	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
FORD	THUNDERBIRD	\$\$	STD	STD	STD	OPT	OPT	OPT
HONDA	CIVIC	\$	OPT	N/A	STD	OPT	N/A	N/A
HONDA	ACCORD HATCHBACK	\$\$	OPT	N/A	STD	OPT	N/A	N/A
HONDA	PRELUDE	\$\$	OPT	OPT	STD	OPT	N/A	N/A
LINCOLN	CONTINENT MARK VII	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MAZDA	GLC	\$	OPT	OPT	STD	OPT	N/A	N/A
MAZDA	626	\$\$	OPT	STD	STD	OPT	OPT	N/A
MERCURY	LYNX	\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	TOPAZ	\$	OPT	OPT	STD	OPT	OPT	OPT
MERCURY	CAPRI	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
MERCURY	COUGAR	\$\$\$	STD	STD	STD	OPT	OPT	OPT
NISSAN	MICRA	\$	OPT	N/A	STD	N/A	N/A	N/A
NISSAN	SENTRA	\$	OPT	OPT	STD	OPT	N/A	N/A
OLDSMOBILE	FIRENZA	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	OMEGA	\$\$	OPT	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CIERA	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS SUPREME	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	TORONADO	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
PLYMOUTH	TURISMO	\$	OPT	OPT	STD	OPT	N/A	N/A
PLYMOUTH	RELIANT	\$	OPT	OPT	STD	OPT	OPT	OPT
PLYMOUTH	CARAVELLE	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	ACADIAN	\$	OPT	OPT	OPT	OPT	N/A	N/A
PONTIAC	2000 SUNBIRD	\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	2000 SUNBIRD	\$\$	OPT	OPT	STD	OPT	OPT	OPT

VEHICLE COMPARISON CHARTS



2-DOOR MODELS (1984) (continued)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS				
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW
PONTIAC	PHOENIX	\$	OPT	OPT	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT
PONTIAC	FIREBIRD	\$\$	OPT	STD	STD	OPT	OPT
PONTIAC	GRAND PRIX	\$\$	STD	STD	STD	OPT	OPT
SAAB	900	\$\$\$	OPT	STD	STD	OPT	OPT
SUBARU	GL	\$\$	OPT	OPT	STD	OPT	OPT
TOYOTA	COROLLA SRS	\$\$	OPT	OPT	STD	OPT	N/A
TOYOTA	CELICA	\$\$	OPT	STD	STD	OPT	N/A
VOLKSWAGEN	RABBIT	\$	OPT	N/A	OPT	OPT	N/A
VOLKSWAGEN	JETTA	\$\$	OPT	OPT	OPT	OPT	N/A

4-DOOR MODELS (1984)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS				
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW
AMC/RENAULT	ENCORE	\$	OPT	OPT	STD	OPT	OPT
AMC/RENAULT	ALLIANCE	\$	OPT	OPT	STD	OPT	OPT
AUDI	4000S	\$\$\$\$	OPT	STD	STD	STD	N/A
AUDI	5000S	\$\$\$\$\$	STD	STD	STD	STD	STD
BMW	528e & 533i	\$\$\$\$\$	OPT	STD	STD	STD	STD
BMW	733i	\$\$\$\$\$	OPT	STD	STD	STD	STD
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT
BUICK	SKYLARK	\$\$	OPT	STD	STD	OPT	OPT
BUICK	CENTURY	\$\$	STD	STD	STD	OPT	OPT
BUICK	REGAL	\$\$	STD	STD	STD	OPT	OPT
BUICK	LE SABRE	\$\$	STD	STD	STD	OPT	OPT
CADILLAC	CIMMARRON	\$\$\$\$	OPT	STD	STD	OPT	OPT
CADILLAC	DE VILLE D'ELEGANCE	\$\$\$\$	STD	STD	STD	STD	STD
CADILLAC	FLEETWOOD D'ELEG.	\$\$\$\$	STD	STD	STD	STD	STD
CADILLAC	SEVILLE	\$\$\$\$	STD	STD	STD	STD	STD
CHEVROLET	CHEVETTE	\$	OPT	OPT	OPT	N/A	N/A
CHEVROLET	CAVALIER	\$	OPT	OPT	STD	OPT	OPT
CHEVROLET	CITATION II	\$	OPT	OPT	OPT	OPT	N/A
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT
CHEVROLET	IMPALA	\$\$	STD	STD	STD	OPT	OPT
CHEVROLET	CAPRICE	\$\$	STD	STD	STD	OPT	OPT
CHRYSLER	LEBARON	\$\$	STD	STD	STD	OPT	OPT
CHRYSLER	E CLASS	\$\$	STD	STD	STD	OPT	OPT
CHRYSLER	NEW YORKER	\$\$	STD	STD	STD	STD	STD
CHRYSLER	FIFTH AVENUE	\$\$\$\$	STD	STD	STD	STD	STD
DODGE	OMNI	\$	OPT	OPT	STD	OPT	N/A
DODGE	ARIES	\$	OPT	OPT	STD	OPT	OPT
DODGE	600	\$\$	OPT	STD	STD	OPT	OPT
DODGE	DIPLOMAT SALON	\$\$	STD	STD	STD	OPT	OPT
FORD	ESCORT	\$	OPT	OPT	OPT	OPT	N/A
FORD	TEMPO	\$	OPT	OPT	STD	OPT	OPT
FORD	LTD	\$\$	STD	STD	STD	OPT	OPT
FORD	CROWN VICTORIA	\$\$	STD	STD	STD	OPT	OPT
HONDA	ACCORD	\$\$	OPT	OPT	STD	OPT	OPT
HYUNDAI	PONY	\$	OPT	N/A	STD	OPT	N/A
JAGUAR	XJ6	\$\$\$\$	STD	STD	STD	STD	N/A

VEHICLE COMPARISON CHARTS



			GETTING IN AND OUT						USING THE TRUNK										
DJ	STR	W	CRUISE	TRNK	REL	ENTER	WDTH	DR	PULL	REAR	OPEN	SILL	HGT	HUMP	CONSOLE	LOAD	HGT	TRK	VOL
OPT	OPT	YES	★ ★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★ ★	★ ★	★ ★
OPT	OPT	YES	★ ★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★ ★	★ ★	★ ★
OPT	OPT	YES	★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	YES	★	★ ★	★ ★	★ ★
OPT	OPT	YES	★ ★ ★	★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★ ★	★ ★	★ ★
N/A	OPT	NO	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
STD	OPT	YES	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★		
STD	OPT	YES	★ ★ ★ ★	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	YES	★ ★	★ ★	★ ★	★ ★
STD	STD	YES	★ ★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	YES	★ ★	★ ★	★ ★	★ ★
N/A	OPT	NO	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★ ★	★ ★	★ ★
N/A	OPT	NO	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	★ ★	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	NO	NO	★ ★	★ ★	★ ★	★ ★

4-DOOR MODELS (1984) (continued)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
LADA	SIGNET	\$	OPT	N/A	STD	N/A	N/A	N/A
LINCOLN	CONTINENTAL	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
LINCOLN	TOWN CAR	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MERCEDES-BENZ	190 D&E	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A
MERCEDES-BENZ	300 TD	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A
MERCEDES BENZ	300 D & E	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MERCURY	LYNX	\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	TOPAZ	\$	OPT	OPT	STD	OPT	OPT	OPT
MERCURY	MARQUIS	\$\$	STD	STD	STD	OPT	OPT	OPT
MERCURY	GRAND MARQUIS	\$\$\$	STD	STD	STD	OPT	OPT	OPT
NISSAN	STANZA	\$\$	OPT	OPT	STD	OPT	OPT	N/A
NISSAN	MAXIMA	\$\$\$\$	STD	STD	STD	STD	STD	N/A
OLDSMOBILE	FIRENZA	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	OMEGA	\$\$	OPT	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CIERA	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS SUPREME	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	DELTA 88	\$\$\$	STD	STD	STD	OPT	OPT	OPT
PLYMOUTH	HORIZON	\$	OPT	OPT	STD	OPT	N/A	N/A
PLYMOUTH	RELIANT	\$	OPT	OPT	STD	OPT	OPT	OPT
PLYMOUTH	CARAVELLE	\$\$	OPT	STD	STD	OPT	OPT	OPT
PLYMOUTH	CARAVELLE SALON	\$\$	STD	STD	STD	OPT	OPT	OPT
PONTIAC	ACADIAN	\$	OPT	OPT	OPT	OPT	N/A	N/A
PONTIAC	2000 SUNBIRD	\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	PHOENIX	\$	OPT	OPT	OPT	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	BONNEVILLE	\$\$	STD	STD	STD	OPT	OPT	OPT
PONTIAC	PARISIENNE	\$\$	STD	STD	STD	OPT	OPT	OPT
SKODA	120 CLS	\$	N/A	N/A	STD	N/A	N/A	N/A
TOYOTA	COROLLA	\$\$	OPT	OPT	STD	OPT	N/A	N/A
TOYOTA	CAMRY	\$\$	OPT	STD	STD	OPT	OPT	N/A
TOYOTA	CRESSIDA	\$\$\$\$	STD	STD	STD	STD	STD	N/A
VOLVO	240	\$\$	OPT	STD	STD	OPT	OPT	N/A
VOLVO	760 GLE	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A

VEHICLE COMPARISON CHARTS



WAGONS (1984)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	SPORTWAGON	\$\$	OPT	STD	STD	OPT	OPT	N/A
AMC/RENAULT	EAGLE	\$\$\$	OPT	STD	STD	OPT	OPT	OPT
AUDI	AVANT	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT	OPT
BUICK	CENTURY	\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	ELECTRA ESTATE	\$\$\$\$	STD	STD	STD	OPT	OPT	OPT
CHEVROLET	CAVALIER	\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT	OPT
CHEVROLET	CAPRICE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	LEBARON	\$\$	STD	STD	STD	OPT	OPT	OPT
DODGE	ARIES	\$\$	OPT	OPT	STD	OPT	OPT	OPT
FORD	ESCORT	\$	OPT	OPT	STD	OPT	N/A	N/A
FORD	LTD	\$\$	STD	STD	STD	OPT	OPT	OPT
FORD	COUNTRY SQUIRE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
HONDA	CIVIC WAGON	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	LYNX	\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	MARQUIS	\$\$	STD	STD	STD	OPT	OPT	OPT
MERCURY	COLONY PARK	\$\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	FIRENZA CRUISER	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	CUSTOM CRUISER	\$\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CRUISER	\$\$	STD	STD	STD	OPT	OPT	OPT
PLYMOUTH	RELIANT	\$\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	2000 SUNBIRD	\$\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	PARISIENNE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
TOYOTA	TERCEL WAGON	\$	OPT	OPT	STD	OPT	N/A	N/A
VOLVO	240 WAGON	\$\$\$	OPT	STD	STD	OPT	OPT	N/A

VANS & LIGHT TRUCKS (1984)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	WAGONEER	\$\$.	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	S10	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	CUSTOM DELUXE, C10	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	BLAZER	\$\$	OPT	STD	STD	OPT	OPT	N/A
CHEVROLET	SPORTVAN, G10	\$\$	OPT	OPT	OPT	OPT	OPT	OPT
DODGE	CARAVAN	\$\$	OPT	STD	STD	OPT	OPT	N/A
FORD	F150	\$\$	OPT	STD	STD	OPT	OPT	N/A
FORD	RANGER	\$	OPT	STD	STD	OPT	OPT	N/A
FORD	BRONCO II	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
PLYMOUTH	VOYAGEUR	\$\$	OPT	STD	STD	OPT	OPT	N/A

VEHICLE COMPARISON CHARTS



ADJ STR W	CRUISE	TRNK REL	GETTING IN AND OUT						USING THE TRUNK	
			ENTER WDTH	DR PULL	REAR OPEN	SILL HGT	HUMP	CONSOLE	LOAD HGT	TRK VOL
STD	OPT	NO	★ ★	★ ★	N/A	★	YES	YES	★ ★ ★ ★	★ ★ ★ ★
OPT	OPT	NO	★ ★	★ ★	N/A	★ ★ ★	YES	NO	★	★ ★
N/A	STD	NO	★ ★	★ ★ ★	N/A	★ ★ ★ ★	YES	YES	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
N/A	N/A	NO	★	★ ★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	NO	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★	★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
OPT	OPT	NO	★	★ ★ ★ ★	N/A	★ ★ ★	YES	NO	★ ★ ★	★ ★ ★
N/A	OPT	NO	★	★ ★	N/A	★ ★	YES	YES	★ ★ ★	★ ★ ★

ADJ STR W	CRUISE	TRNK REL	GETTING IN AND OUT						USING THE TRUNK	
			ENTER WDTH	DR PULL	REAR OPEN	SILL HGT	HUMP	CONSOLE	LOAD HGT	TRK VOL
OPT	OPT	NO	★ ★	★ ★ ★ ★	N/A	★	YES	YES	★ ★ ★	★ ★ ★
OPT	OPT	N/A	★ ★	★ ★ ★	N/A	★ ★	NO	NO	★ ★ ★ ★	★ ★ ★ ★
OPT	OPT	N/A	★	★ ★	N/A	★	NO	NO	★ ★ ★	★ ★ ★
OPT	OPT	YES	★ ★ ★	★ ★	★ ★	★ ★	YES	YES	★ ★ ★	★ ★ ★
OPT	OPT	N/A	★ ★	★ ★ ★ ★	N/A	★ ★	NO	NO	★ ★ ★ ★	★ ★ ★ ★
OPT	OPT	YES	★ ★ ★	★ ★ ★	N/A	★ ★	NO	NO	★ ★ ★ ★	★ ★ ★ ★
OPT	OPT	N/A	★ ★	★ ★ ★	N/A	★	NO	YES	★ ★	★ ★ ★
OPT	OPT	N/A	★ ★	★ ★ ★ ★	N/A	★	YES	YES	★ ★ ★	★ ★ ★
OPT	OPT	NO	★ ★	★ ★ ★ ★	★	★	YES	YES	★ ★ ★	★ ★ ★
OPT	OPT	YES	★ ★ ★	★ ★ ★	N/A	★ ★	NO	NO	★ ★ ★ ★	★ ★ ★ ★

2-DOOR MODELS (1985)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	R5	\$	N/A	N/A	OPT	N/A	N/A	N/A
AMC/RENAULT	ALLIANCE	\$	OPT	OPT	STD	OPT	OPT	N/A
AMC/RENAULT	ENCORE	\$	OPT	OPT	STD	OPT	OPT	N/A
AMC/RENAULT	FUEGO	\$\$	OPT	STD	STD	OPT	OPT	N/A
AUDI	COUPE	\$\$\$\$\$	OPT	STD	STD	STD	STD	N/A
BMW	318i	\$\$\$\$	OPT	STD	STD	OPT	STD	N/A
BMW	325e	\$\$\$\$\$	OPT	STD	STD	OPT	STD	N/A
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT	OPT
BUICK	CENTURY	\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	SOMERSET REGAL	\$\$	OPT	STD	STD	OPT	OPT	OPT
BUICK	REGAL	\$\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	RIVIERA	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	ELDORADO	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	DE VILLE D'ELEGANCE	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CHEVROLET	CHEVETTE	\$\$	OPT	OPT	OPT	N/A	N/A	N/A
CHEVROLET	CAVALIER	\$\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CITATION II	\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT	OPT
CHEVROLET	CAMARO	\$\$	OPT	STD	STD	OPT	OPT	OPT
CHEVROLET	MONTE CARLO	\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	LASER	\$\$	OPT	OPT	STD	OPT	OPT	N/A
CHRYSLER	LEBARON	\$\$	STD	STD	STD	OPT	OPT	OPT
DODGE	CHARGER	\$	OPT	OPT	STD	OPT	N/A	N/A
DODGE	ARIES	\$	OPT	OPT	STD	OPT	OPT	OPT
DODGE	DAYTONA	\$\$	OPT	OPT	STD	OPT	OPT	N/A
DODGE	600	\$\$	OPT	STD	STD	OPT	OPT	OPT
FORD	ESCORT	\$	OPT	OPT	OPT	OPT	N/A	N/A
FORD	TEMPO	\$	OPT	OPT	STD	OPT	OPT	OPT
FORD	MUSTANG	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
FORD	THUNDERBIRD	\$\$\$	STD	STD	STD	OPT	OPT	OPT
HONDA	CIVIC	\$	OPT	N/A	STD	OPT	N/A	N/A
HONDA	ACCORD HATCHBACK	\$\$	OPT	N/A	STD	OPT	N/A	N/A
HONDA	PRELUNE	\$\$	OPT	OPT	STD	OPT	N/A	N/A
LINCOLN	CONTINENT. MARK VII	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MAZDA	GLC	\$	OPT	OPT	STD	OPT	N/A	N/A
MAZDA	626	\$\$	OPT	STD	STD	OPT	OPT	N/A
MERCURY	LYNX	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	TOPAZ	\$\$	OPT	OPT	STD	OPT	OPT	OPT
MERCURY	CAPRI	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
MERCURY	COUGAR	\$\$\$	STD	STD	STD	OPT	OPT	OPT
NISSAN	MICRA	\$	OPT	N/A	STD	N/A	N/A	N/A
NISSAN	SENTRA	\$	OPT	OPT	STD	OPT	N/A	N/A
OLDSMOBILE	FIRENZA	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	CALAIS	\$\$	OPT	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CIERA	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS SUPREME	\$\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	NINETY-EIGHT	\$\$\$\$	STD	STD	STD	STD	STD	STD
OLDSMOBILE	TORONADO	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
PLYMOUTH	TURISMO	\$	OPT	OPT	STD	OPT	N/A	N/A
PLYMOUTH	RELIANT	\$	OPT	OPT	STD	OPT	OPT	OPT
PYMOJTH	CARAVELLE	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	ACADIAN	\$	OPT	OPT	OPT	OPT	N/A	N/A
PONTIAC	2000 SUNBIRD	\$\$	OPT	OPT	STD	OPT	OPT	OPT

VEHICLE COMPARISON CHARTS



2-DOOR MODELS (1985) (continued)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
PONTIAC	GRAM AM	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	FIREBIRD	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	GRAND PRIX	\$\$	STD	STD	STD	OPT	OPT	OPT
SAAB	900	\$\$\$\$	OPT	STD	STD	OPT	OPT	N/A
SUBARU	XT	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
SUBARU	GL	\$\$	OPT	OPT	STD	OPT	OPT	N/A
TOYOTA	TERCEL	\$	OPT	OPT	STD	OPT	N/A	N/A
TOYOTA	COROLLA SR5	\$\$	OPT	OPT	STD	OPT	N/A	N/A
TOYOTA	CELICA	\$\$\$	OPT	STD	STD	OPT	N/A	N/A
VOLKSWAGEN	GOLF	\$\$	OPT	OPT	STD	OPT	N/A	N/A
VOLKSWAGEN	JETTA	\$\$	OPT	OPT	STD	OPT	N/A	N/A

4-DOOR MODELS (1985)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC /RENAULT	ALLIANCE	\$	OPT	OPT	STD	OPT	OPT	N/A
AMC /RENAULT	ENCORE	\$\$	OPT	OPT	STD	OPT	OPT	N/A
AUDI	4000S	\$\$\$\$\$	OPT	STD	STD	STD	STD	N/A
AUDI	5000S	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
BMW	528e & 533i	\$\$\$\$\$	OPT	STD	STD	STD	STD	N/A
BMW	733i	\$\$\$\$\$	OPT	STD	STD	STD	STD	STD
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT	OPT
BUICK	CENTURY	\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	LE SABRE	\$\$	STD	STD	STD	OPT	OPT	OPT
CADILLAC	CIMMARON	\$\$\$	OPT	STD	STD	STD	OPT	OPT
CADILLAC	FLEETW. D'ELEGANCE	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	DE VILLE D'ELEGANCE	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CADILLAC	SEVILLE	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
CHEVROLET	CHEVETTE	\$	OPT	OPT	OPT	N/A	N/A	N/A
CHEVROLET	CAVALIER	\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CITATION II	\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT	OPT
CHEVROLET	IMPALA	\$\$	STD	STD	STD	OPT	OPT	OPT
CHEVROLET	CAPRICE	\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	LEBARON	\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	GTS	\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	NEW YORKER	\$\$	STD	STD	STD	STD	STD	STD
CHRYSLER	FIFTH AVENUE	\$\$\$	STD	STD	STD	STD	STD	STD
DODGE	OMNI	\$	OPT	OPT	STD	OPT	N/A	N/A
DODGE	ARIES	\$	OPT	OPT	STD	OPT	OPT	OPT
DODGE	LANCER	\$\$	STD	STD	STD	OPT	OPT	OPT
DODGE	600	\$\$	OPT	STD	STD	OPT	OPT	OPT
DODGE	DIPLOMAT SALON	\$\$	STD	STD	STD	OPT	OPT	OPT
FORD	ESCORT	\$	OPT	OPT	OPT	OPT	N/A	N/A
FORD	TEMPO	\$	OPT	OPT	STD	OPT	OPT	OPT
FORD	LTD	\$\$	STD	STD	STD	OPT	OPT	OPT
FORD	CROWN VICTORIA	\$\$\$	STD	STD	STD	OPT	OPT	OPT
HONDA	ACCORD	\$\$	OPT	OPT	STD	OPT	OPT	N/A
HYUNDAI	PONY	\$	OPT	N/A	STD	OPT	N/A	N/A

VEHICLE COMPARISON CHARTS



			GETTING IN AND OUT						USING THE TRUNK	
STR W	CRUISE	TRNK REL	ENTER WDTH	DR PULL	REAR OPEN	SILL HGT	HUMP	CONSOLE	LOAD HGT	TRK VOL
OPT	OPT	YES	★ ★ ★	★ ★	★ ★ ★	★ ★	YES	NO	★ ★	★ ★
OPT	OPT	YES	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	YES	NO	★ ★	★ ★
OPT	OPT	YES	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	YES	YES	★	★ ★
OPT	OPT	YES	★ ★	★	★ ★ ★	★ ★	YES	NO	★ ★	★ ★
N/A	OPT	NO	★ ★	★ ★	★ ★ ★	★ ★ ★	YES	YES	★ ★ ★	★ ★ ★
STD	OPT	YES	★ ★	★ ★ ★	★ ★ ★	★ ★	YES	YES	★ ★	★ ★
STD	OPT	YES	★ ★ ★	★ ★ ★	★ ★	★ ★	YES	NO	★ ★	★ ★
STD	OPT	NO	★ ★ ★	★ ★ ★	★ ★ ★	★ ★	YES	NO	★ ★ ★	★ ★
STD	OPT	YES	★ ★ ★	★ ★	★ ★ ★	★ ★	YES	YES	★ ★	★ ★
STD	STD	YES	★ ★ ★	★ ★	★ ★	★ ★	YES	YES	★ ★	★ ★
N/A	OPT	NO	★ ★	★ ★ ★	★ ★	★ ★	NO	NO	★ ★	★ ★
N/A	OPT	NO	★ ★	★ ★ ★	★ ★	★ ★	NO	NO	★ ★	★ ★ ★

4-DOOR MODELS (1985) (continued)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SE
HYUNDAI	STELLAR GSL	\$\$	OPT	OPT	STD	OPT	STD	N/A
JAGUAR	XJ6	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A
LADA	SIGNET	\$	OPT	N/A	STD	N/A	N/A	N/A
LINCOLN	CONTINENTAL	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
LINCOLN	TOWN CAR	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MAZDA	GLC	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MAZDA	626	\$\$	OPT	STD	STD	OPT	OPT	N/A
MERCEDES-BENZ	190 D&E	\$\$\$\$\$	STD	STD	STD	STD	STD	OPT
MERCEDES-BENZ	300 TD	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A
MERCEDES-BENZ	300 D & E	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
MERCURY	LYNX	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	TOPAZ	\$\$	OPT	OPT	STD	OPT	OPT	OPT
MERCURY	MARQUIS	\$\$	STD	STD	STD	OPT	OPT	OPT
MERCURY	GRAND MARQUIS	\$\$\$	STD	STD	STD	OPT	OPT	OPT
NISSAN	STANZA	\$\$\$	OPT	OPT	STD	OPT	OPT	N/A
NISSAN	MAXIMA	\$\$\$\$	STD	STD	STD	STD	STD	N/A
OLDSMOBILE	FIRENZA	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CIERA	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS SUPREME	\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	DELTA 88	\$\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	NINETY-EIGHT	\$\$\$\$	STD	STD	STD	STD	STD	STD
PLYMOUTH	HORIZON	\$	OPT	OPT	STD	OPT	N/A	N/A
PLYMOUTH	RELIANT	\$	OPT	OPT	STD	OPT	OPT	OPT
PLYMOUTH	CARAVELLE	\$\$	OPT	STD	STD	OPT	OPT	OPT
PLYMOUTH	CARAVELLE SALON	\$\$	STD	STD	STD	OPT	OPT	OPT
PONTIAC	ACADIAN	\$	OPT	OPT	OPT	OPT	N/A	N/A
PONTIAC	2000 SUNBIRD	\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	BONNEVILLE	\$\$	STD	STD	STD	OPT	OPT	OPT
PONTIAC	PARISIENNE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
SAAB	900	\$\$\$\$	OPT	STD	STD	OPT	OPT	N/A
SKODA	120 CLS	\$	N/A	N/A	STD	N/A	N/A	N/A
SUBARU	GL-10	\$\$	OPT	OPT	STD	OPT	OPT	OPT
TOYOTA	TERCEL	\$	OPT	OPT	STD	OPT	N/A	N/A
TOYOTA	COROLLA	\$\$	OPT	OPT	STD	OPT	N/A	N/A
TOYOTA	CAMRY	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
TOYOTA	CRESSIDA	\$\$\$\$	STD	STD	STD	STD	STD	N/A
VOLKSWAGEN	JETTA	\$\$	OPT	OPT	STD	OPT	OPT	N/A
VOLVO	240	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
VOLVO	760 GLE	\$\$\$\$\$	STD	STD	STD	STD	STD	N/A

VEHICLE COMPARISON CHARTS



		GETTING IN AND OUT						USING THE TRUNK		
ADJ STR W	CRUISE	TRNK REL	ENTER WDTH	DR PULL	REAR OPEN	SILL HGT	HUMP	CONSOLE	LOAD HGT	TRK VOL
STD	OPT	YES	★★	★★★	N/A	★★	YES	YES	★★	★★
STD	STD	NO	★	★★	N/A	★★	YES	YES	★★★★	★★
N/A	N/A	NO	★★	★★★★★	N/A	★★	YES	NO	★★	★★
STD	STD	YES	★	★★★★	N/A	★★	YES	NO	★★★	★★
STD	STD	YES	★	★★★	N/A	★★	YES	NO	★★★	★★
N/A	N/A	YES	★★	★★★★★	N/A	★★★★★	YES	NO	★★	★★
STD	OPT	YES	★★	★★★★★	N/A	★★★	YES	YES	★★★	★★
N/A	STD	NO	★★	★★★	N/A	★★★	YES	YES	★★	★★
N/A	STD	NO	★★★	★★★	N/A	★★	YES	YES	★★	★★
N/A	STD	NO	★★	★★	N/A	★★	YES	YES	★★	★★
OPT	OPT	YES	★	★★★★★	N/A	★★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★★	★★★★★	N/A	★★★	YES	NO	★★	★★
STD	STD	YES	★★	★★★★★	N/A	★★★	YES	YES	★★	★★
OPT	OPT	YES	★	★★★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★	N/A	★★★	YES	NO	★★	★★
OPT	OPT	YES	★★	★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★	N/A	★★	YES	NO	★★	★★
STD	STD	YES	★	★★	N/A	★★	NO	NO	★★	★★
N/A	OPT	NO	★	★★★★★	N/A	★★	NO	NO	★★	★★
OPT	OPT	YES	★★	★★	N/A	★★★	NO	NO	★★	★★
OPT	OPT	YES	★★	★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★	N/A	★★★	YES	NO	★★	★★
OPT	N/A	NO	★★	★★★★★	N/A	★★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★★	N/A	★★★	YES	NO	★★	★★
OPT	OPT	YES	★★	★★	N/A	★★	YES	NO	★★	★★
OPT	OPT	YES	★	★★	N/A	★★	YES	NO	★★	★★
N/A	OPT	YES	★	★★★	N/A	★★★	YES	YES	★★	★★
N/A	N/A	YES	★★	★★★★★	N/A	★★★	YES	NO	★★	★
STD	OPT	YES	★★	★★★★	N/A	★★	YES	NO	★★	★★
STD	OPT	NO	★	★★★★	N/A	★★★	YES	NO	★★★	★★
OPT	OPT	YES	★★	★★★	N/A	★★★	YES	NO	★★★	★★★
N/A	OPT	YES	★★	★★★	N/A	★★★	YES	NO	★★★	★★
STD	STD	YES	★★	★★★	N/A	★★★	YES	YES	★★	★★
N/A	OPT	NO	★★	★★★	N/A	★★★	NO	NO	★★	★★
N/A	OPT	YES	★	★★	N/A	★★	YES	YES	★★	★★
N/A	STD	NO	★★	★★	N/A	★★★	YES	YES	★★	★★

WAGONS (1985)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	SPORTWAGON	\$\$	OPT	STD	STD	OPT	OPT	N/A
AMC/RENAULT	EAGLE	\$\$\$	OPT	STD	STD	OPT	OPT	OPT
AUDI	AVANT	\$\$\$\$\$	STD	STD	STD	STD	STD	STD
BUICK	SKYHAWK	\$\$	OPT	OPT	STD	OPT	OPT	OPT
BUICK	CENTURY	\$\$\$	STD	STD	STD	OPT	OPT	OPT
BUICK	ELECTRA ESTATE	\$\$\$\$	STD	STD	STD	OPT	OPT	OPT
CHEVROLET	CAVALIER	\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CELEBRITY	\$\$	OPT	STD	OPT	OPT	OPT	OPT
CHEVROLET	CAPRICE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
CHRYSLER	LEBARON	\$\$\$	STD	STD	STD	OPT	OPT	OPT
DODGE	ARIES	\$\$	OPT	OPT	STD	OPT	OPT	OPT
FORD	ESCORT	\$\$	OPT	OPT	STD	OPT	N/A	N/A
FORD	LTD	\$\$	STD	STD	STD	OPT	OPT	OPT
FORD	COUNTRY SQUIRE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
HONDA	CIVIC WAGON	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	LYNX	\$\$	OPT	OPT	STD	OPT	N/A	N/A
MERCURY	MARQUIS	\$\$	STD	STD	STD	OPT	OPT	OPT
MERCURY	COLONY PARK	\$\$\$	STD	STD	STD	OPT	OPT	OPT
NISSAN	MULTI	\$\$\$	OPT	STD	STD	OPT	OPT	OPT
OLDSMOBILE	FIRENZA CRUISER	\$\$	OPT	OPT	STD	OPT	OPT	OPT
OLDSMOBILE	CUTLASS CRUISER	\$\$\$	STD	STD	STD	OPT	OPT	OPT
OLDSMOBILE	CUSTOM CRUISER	\$\$\$	STD	STD	STD	OPT	OPT	OPT
PLYMOUTH	RELIANT	\$\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	2000 SUNBIRD	\$\$	OPT	OPT	STD	OPT	OPT	OPT
PONTIAC	6000	\$\$	OPT	STD	STD	OPT	OPT	OPT
PONTIAC	PARISIENNE	\$\$\$	STD	STD	STD	OPT	OPT	OPT
SUBARU	GL	\$\$	OPT	OPT	STD	OPT	OPT	N/A
TOYOTA	TERCEL WAGON	\$\$	OPT	OPT	STD	OPT	N/A	N/A
VOLVO	240 WAGON	\$\$\$	OPT	STD	STD	OPT	OPT	N/A

VANS & LIGHT TRUCKS (1985)

MAKE	MODEL	BASE PRICE	AVAILABILITY OF IMPORTANT OPTIONS					
			AUTO TR	PWR STR	PWR BRK	AIR COND	PWR WDW	PWR SEAT
AMC/RENAULT	WAGONEER	\$\$\$	OPT	OPT	STD	OPT	OPT	OPT
CHEVROLET	CUSTOM DELUXE, C10	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	S10	\$	OPT	OPT	OPT	OPT	OPT	N/A
CHEVROLET	BLAZER	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
CHEVROLET	SPORTVAN, G10	\$\$	OPT	OPT	OPT	OPT	OPT	N/A
DODGE	CARAVAN	\$\$	OPT	STD	STD	OPT	OPT	N/A
FORD	RANGER	\$	OPT	STD	STD	OPT	OPT	N/A
FORD	F150	\$\$	OPT	STD	STD	OPT	OPT	N/A
FORD	BRONCO II	\$\$\$	OPT	STD	STD	OPT	OPT	N/A
PLYMOUTH	VOYAGEUR	\$\$	OPT	STD	STD	OPT	OPT	N/A

VEHICLE COMPARISON CHARTS

**STEP
4**

			GETTING IN AND OUT						USING THE TRUNK	
ADJ STR W	CRUISE	TRNK REL	ENTER	DR PULL	REAR OPEN	SILL	HUMP	CONSOLE	LOAD HGT	TRK VOL.
OPT	OPT	NO	★★	★★★★★	N/A	★	YES	YES	★★★	★★★★★
OPT	OPT	N/A	★	★★	N/A	★	NO	NO	★★★	★★★★★
OPT	OPT	N/A	★★	★★	N/A	★	NO	NO	★★★★★	★★★★★
OPT	OPT	YES	★★★	★★	★★	★	YES	YES	★★★	★★★
OPT	OPT	N/A	★★	★★★★★	N/A	★	NO	NO	★★★	★★★★★
OPT	OPT	YES	★★★★★	★★★	N/A	★	NO	NO	★★★★★	★★★★★
OPT	OPT	N/A	★★	★★★	N/A	★	YES	YES	★★★	★★★★★
OPT	OPT	N/A	★★	★★★	N/A	★	NO	YES	★★	★★★★★
OPT	OPT	NO	★★	★★★	★	★	YES	YES	★★★	★★★★★
OPT	OPT	YES	★★★★★	★★★	N/A	★	NO	NO	★★★★★	★★★★★

MORE DETAILED COMPARISONS AMONG VANS

The following are key considerations that disabled persons may want to take into account when comparing van models.

Ford Van

- offers the largest amount of usable space in the driver's station for legs and foot pedals;
- it is the only van in which Target horizontal, zero effort steering or vacuum gas pedals and brakes can be installed. Other adaptive aid manufacturers also prefer to have their equipment installed in Ford vans;
- headroom is generally greater than in other makes. However, this must be checked annually, as headroom varies from model year to model year;
- the van frame permits lowering of the floor by 15 cm (6") in order to make way for a power pan;
- visibility height is approximately 129 cm (51½") from floor to top of windshield. Having the maximum possible visibility height is an important factor for those who sit tall in their wheelchair.

Chevy/GMC Van

- less space in the driving station than the Ford model because (1) the engine cover intrudes into the van interior and (2) the wheel well intrudes into the foot pedal's space;
- higher steering than with a Ford van, and NOT compatible with horizontal steering;
- headroom is generally less than Ford;
- visibility height is 112.5 cm (45") from floor to top of windshield.

Dodge Van

- stiff steering;
- the engine cover intrudes into the van, providing less room for wheelchair and foot pedal clearance;
- visibility height is about 116 cm (46½") from floor to top of windshield;
- maximum headroom is 130 cm (52") with floor levelled;
- the frame and floor structure are not suitable for horizontal steering.

Chrysler/Dodge Mini-Vans

- may be suitable for short-statured persons who need to drive from their wheelchair. However, the floor is already too low for lowering with a power pan;

- may also be appropriate for those capable of transferring from their wheelchair into a four- or six-way power seat;
- door and roof must be raised for persons of normal stature;
- the size allows for garage accessibility and fuel economy;
- front wheel drive manoeuverability;
- raised roof provides 132.5 cm to 137.5 cm (53" to 55") of interior headroom;
- lifts may be installed at either back or side door.

COMPARISON CHECKLIST FOR VEHICLE BUYERS

VEHICLE 3 - COMMENTS				VEH
YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	YES
YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	YES
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	YES
YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	YES
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	YES
YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	YES
YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	YES

COMPARISON CHECKLIST FOR VEHICLE BUYERS

IMPORTANT: Make a note only against those listed design and price features that are important to you.

GETTING IN AND OUT

- Is the door opening wide enough?
- Can I get my feet in over the doorsill?
- Are the seats at a comfortable height?
- Can I drag a wheelchair or other aid in behind me?
- Is the door easy to close?

MODEL _____
VEHICLE 1 - COMMENTS

YES NO
YES NO
YES NO
YES NO
YES NO

ONCE INSIDE

- Are bench seats available?
- Is slideover possible?
- Is there enough interior room?
- Can I reach and manipulate hand controls?
- Can I reach and manipulate foot controls?
- Is visibility satisfactory?
- Will it be easy to park?

YES NO
YES NO
YES NO
YES NO
YES NO
YES NO
YES NO

TRUNK USE

- Is the trunk low enough to the ground?
- Is the trunk well shallow enough?
- Can I store essentials in it?

YES NO
YES NO
YES NO

OPTIONS

- Automatic transmission
- Power steering and brakes
- Power windows
- Power seats
- Adjustable steering wheel
- Cruise control
- Air conditioning
- Trunk release
- Power door locks
- Seat rake adjustment
- Lumbar support in seats
- Other (add as necessary)

Standard Optional \$ _____
Standard Optional \$ _____

**TOTAL COST OF DESIRED
OPTIONS \$ _____**

(specify)

YES _____ NO
YES NO COMMENTS
\$ _____

ADAPTATIONS

- Any adaptations required?
- Can they be done within reasonable distance?
- How much will adaptation cost?

COST

Vehicle Sticker Price

\$ _____

Total Cost of Desired Options

\$ _____

Total Cost of Desired Adaptations

\$ _____

Total Vehicle Price

\$ _____

The following checklist is designed to provide you with a quick reminder of key questions you want to keep in mind when choosing a vehicle. Once you have narrowed your choices down to a few models, you can use the checklist as you inspect each vehicle. Additional copies of this checklist are included at the back of the book.

MODEL _____
VEHICLE 2 - COMMENTS

YES NO
 YES NO
 YES NO
 YES NO
 YES NO

MODEL _____
VEHICLE 3 - COMMENTS

YES NO
 YES NO
 YES NO
 YES NO
 YES NO

MODEL _____
VEHICLE 4 - COMMENTS

YES NO
 YES NO
 YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO

YES NO
 YES NO
 YES NO

Standard Optional \$ _____
 Standard Optional \$ _____

Standard Optional \$ _____
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 Standard Optional \$ _____
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 Standard Optional \$ _____

TOTAL COST OF DESIRED OPTIONS \$ _____
 (specify)

YES _____ NO
 YES NO COMMENTS
 \$ _____

TOTAL COST OF DESIRED OPTIONS \$ _____

YES _____ NO
 YES NO COMMENTS
 \$ _____

TOTAL COST OF DESIRED OPTIONS \$ _____

YES _____ NO
 YES NO COMMENTS
 \$ _____

\$ _____
 \$ _____
 \$ _____
 \$ _____

\$ _____
 \$ _____
 \$ _____
 \$ _____

\$ _____
 \$ _____
 \$ _____
 \$ _____

APPENDIX

Assistance programs and driver education



ASSISTANCE PROGRAMS AND DRIVER EDUCATION

ASSISTANCE PROGRAMS BY PROVINCE

General Introduction

The types, level and availability of financial assistance for the disabled driver vary from province to province. Some have few sources of public assistance and disabled drivers living there must look mainly to private sources, notably service clubs. Other provinces provide relatively generous assistance, some funding the purchase of an equipped van in certain cases.

All the provinces provide financial assistance for disabled drivers under the Vocational Rehabilitation of Disabled Persons (VRDP) Program, a provincially run, but federally and provincially funded program. In almost all cases, VRDP restricts its assistance to subsidizing the cost of purchasing certain hand controls and other adaptive aids, where such assistance is job or education-related. Each province delivers the program through a department of its choosing. You can identify the provincial government department responsible for VRDP in your province by consulting the pages that follow.

Finally, mention should be made of the Workers' Compensation Boards, which exist as Crown corporations in each province. These boards are usually the first source of assistance for drivers with disabilities caused by an injury sustained on the job.

British Columbia

- The Provincial Ministry of Labour administers job and education-related financial assistance available under the Vocational Rehabilitation of Disabled Persons Program. The Ministry can provide financial assistance for the purchase and installation of basic driving aids, such as hand controls.
- For disabilities sustained as a result of an automobile accident, the Insurance Corporation of British Columbia has a no-fault claims system which, in most cases can be tapped for financial assistance in the purchase and installation of special equipment. Recently there has been a tendency to provide assistance mainly for employment and education-related needs.
- The Workers' Compensation Board of British Columbia is the prime source of assistance for drivers disabled as a result of job-related accidents. The board's headquarters in Richmond can be contacted by dialing (604) 273-2266.



- Service clubs, particularly in smaller communities, often raise money for individual cases that do not qualify under any of the above categories (for example, athletic injuries).
- The G.F. Strong Rehabilitation Centre in Vancouver (tel.: (604) 734-1313) is an excellent source of information and counselling for disabled drivers, or would-be drivers seeking assistance. The Centre also provides an important community follow-up and liaison service for disabled persons.

Alberta

- The Motor Vehicle Accident Claims Fund (tel.: (403) 427-8255) can provide comprehensive assistance of up to \$95,000 to a driver who has become disabled as a result of a motor vehicle accident. The fund provides assistance for adaptive equipment only, not for the purchase of a vehicle itself.
- The Canadian Paraplegic Association and Polio Foundation provide assistance to their respective client groups who fall under the category of disabled drivers. The Polio Foundation operates through the Royal Canadian Legion and assists post-polio cases.
- The Workers' Compensation Board of Alberta provides assistance to workers disabled as a result of an on-the-job accident. General information can be obtained by dialing (403) 427-1100 in Edmonton.
- The Alberta Rehabilitation Council for the Disabled (ARCD) serves as a "gap filler", assisting drivers affected by disabilities related to such conditions as multiple sclerosis, muscular dystrophy, stroke, heart disease and diabetes. Provided on the basis of financial need, ARCD assistance typically takes the form of grants or interest-free loans for the purchase of adaptive equipment. ARCD also works through local service clubs. The Council can be reached at: 363 Kingsway Garden Mall, 109 Street and Kingsway, Edmonton, T5G 3A6. Its telephone number is (403) 471-4510.
- Finally, the War Amputees of Canada assist amputees, both veterans and civilians, the latter on the recommendation of the ARCD.

Saskatchewan

- Under the Paraplegia Program of the Saskatchewan Health-Aids to Independent Living Program, disabled persons who have been assessed by a specialist in rehabilitation medicine and who have successfully completed a driver education course, may qualify for financial assistance for the purchase and installation of hand controls, parking brake extensions and other aids. The Paraplegia Program also financially assists paraplegics



in obtaining van lifts. Both of these organizations can be contacted by calling (306) 787-7121 in Regina.

- The Department of Social Services administers the Vocational Rehabilitation of Disabled Persons Program, which provides financial assistance to disabled drivers for vocational purposes. The department can be contacted at (306) 565-3844.
- Finally, for drivers who are disabled as a result of an accident sustained on the job, the Workers' Compensation Board of Saskatchewan can be reached at 1-800-667-9800.

Manitoba

- Financial assistance for disabled drivers in Manitoba is provided under the Vocational Rehabilitation of Disabled Persons (VRDP) Program. VRDP will not help with the purchase of a vehicle, but it will provide financial assistance towards the cost of purchasing and installing hand controls and other adaptive aids.
- Financial assistance for the purchase of hand controls is also fully covered under the Manitoba Health Service and is apparently easier to obtain than VRDP assistance.
- The Health Science Centre attached to the Rehabilitation Hospital in Winnipeg designs, manufactures and installs special seats free of charge, when such seats are not commercially available. The Rehabilitation Hospital, Health Science Centre, is located on 59 Pearl Street, Winnipeg, Manitoba, R3A 1M4. Its telephone number is (204) 787-2370.
- The Workers' Compensation Board of Manitoba is particularly generous in assisting workers with job-related injuries to the spinal cord. The board's number is (204) 736-5471.
- Service clubs also provide assistance to individuals on a case-by-case basis. They tend to favour needy cases who have had difficulty obtaining assistance from public or private institutional sources.
- Other sources of general information on assistance programs available to disabled drivers in Manitoba include the Society of Crippled Children and Adults of Manitoba (tel.: Winnipeg (204) 786-5601) and the Winnipeg office of the Canadian Paraplegic Association (tel.: (204) 786-4753).

Ontario

- The Vocational Rehabilitation of Disabled Persons Program of the Department of Community and Social Services is responsible for job and education-related assistance to disabled drivers, including housewives.



The department can be contacted through local offices in various communities.

- The Workers' Compensation Board of Ontario services the needs of persons disabled as a result of job-related injuries. They can be contacted at the following toll-free number: 1-800-268-3760.
- The Easter Seal Society of Ontario (tel.: (416) 425-6220) is based in Toronto and provides assistance to drivers between 16 and 19 years of age for the purchase and installation of adaptive aids and for obtaining driving lessons.
- Insurance coverage in Ontario varies by company and by policy.
- The March of Dimes has been known to provide assistance to disabled drivers who have failed to qualify for assistance under the programs listed above. Local March of Dimes organizations exist in individual communities.

Quebec

- La commission de la santé et de la sécurité au travail du Québec (workers' compensation board) provides assistance to drivers who are disabled as a result of injuries sustained on the job. Details on specific types of assistance can be obtained by dialing (514) 873-3990 in Montreal.
- La régie de l'assurance automobile du Québec provides no-fault insurance coverage. Offices are located throughout the province.
- L'office des personnes handicapées du Québec (OPHQ) provides financial help to disabled drivers who do not qualify under the first two sources. For example, they can assist persons with such conditions as stroke, arthritis, congenital defects or sports-related injuries. Call toll-free: 1-800-567-1465.

New Brunswick

- In New Brunswick, the federal-provincial Vocational Rehabilitation of Disabled Persons Program is administered by the Department of Social Services. The Department will provide funds for certain types of adaptive equipment for disabled drivers who must drive to work and who are taking part in a vocational rehabilitation plan.
- Under the new Community Service for the Disabled Program, also funded under VRDP, assistance for the purchase of adaptive equipment can be provided to disabled persons who must drive their children to school. To apply for VRDP assistance, call the Department of Social Services in Fredericton at (506) 453-9955.



- The Workers' Compensation Board of New Brunswick (1-800-222-9775) is the key source of assistance to drivers with job-related disabilities.
- Under New Brunswick law, all auto insurance plans in that province must contain a clause providing up to \$25,000 in assistance for rehabilitation-related equipment, plus an income supplement for drivers or their passengers who are disabled as the result of a motor vehicle accident.
- The New Brunswick Branch of the Canadian Rehabilitation Fund for the Disabled is a source of general guidance and assistance for disabled persons, including drivers.
It can be reached at: 65 Brunswick St., Fredericton, New Brunswick, E3B 1G5. Its telephone number is (506) 455-5990.
- Service clubs in New Brunswick have, in some instances, been known to provide outfitted vans to groups of disabled persons.

Nova Scotia

- Along with the Rehabilitation Coordination Administration (tel.: (902) 424-4390), which administers VRDP, and the Workers' Compensation Board of Nova Scotia (tel.: (902) 425-8440), the third source of assistance for disabled drivers is the Ability Fund (formerly the March of Dimes, now expanded to a wider range of disabilities), run by the Nova Scotia Chapter of the Canadian Rehabilitation Council for the Disabled (CRCD). Write or call: CRCD, 900 Barrington Street, Halifax, Nova Scotia, B3H 2P7. Its telephone number is (902) 429-3420.

Prince Edward Island

- The Charlottetown Rotary Club's Rehabilitation Council can be reached at (902) 892-6755.
- The Department of Health and Social Services, which administers the provincial VRDP program, will fund the purchase of required driver adaptive equipment for job or training purposes. Call (902) 892-5471 in Charlottetown or one of the five regional offices in the province.
- The Workers' Compensation Board of P.E.I. has in some cases funded a fully equipped van. They can be reached in Charlottetown at (902) 894-8551.

Newfoundland

- The Rehabilitation Directorate is responsible for administering VRDP in Newfoundland. It can be reached at (709) 737-3548. Service clubs in the province also provide assistance on an individual, case-by-case basis.



DRIVER ASSESSMENT/INSTRUCTION IN CANADA

Guide to Services Offered

Driver Instruction	DI
Driver Evaluation	DE
Hand controls and related equipment	HC
Information	IN

British Columbia

Ms. Susan Iles DE, DI, HC, IN

c/o Occupational Therapy Dept.

Gorge Road Hospital

63 Gorge Rd. East

Victoria, B.C.

V9A 1L2

(604) 386-2464

Remedial Gymnast Dept. IN, DE

G.F. Strong Rehabilitation Centre

4255 Laurel St.

Vancouver, B.C.

V5Z 2G9

(604) 734-1313

Broadway Driving School DI

10 East Broadway

Vancouver, B.C.

V5R 1V6

(604) 872-1266

Alberta

Driver Education Programme IN, DE, DI

Occupational Therapy Dept.

Glenrose Hospital

10230 — 111 Avenue

Edmonton, Alta.

T5G 0B7

(403) 471-2262



Saskatchewan

Ms. Elaine Manary
Driver Education
Saskatchewan Abilities Council
1410 Kilburn Ave.
Saskatoon, Sask.
S7M 0JB
(306) 653-1694

DI, DE, HC, IN

Occupational Therapy Dept.
University Hospital
Saskatoon, Sask.
S7N 0X0
(306) 244-2323

DE, IN

Manitoba

Occupational Therapy Dept.
Health Sciences Centre
800 Sherbrook St.
Winnipeg, Man.
R3A 1M4
(204) 744-6511

DE, IN

Ontario

Georgetown

Mr. Jack Beer
BT3 Driving School
13 McIntyre Crescent
Georgetown, Ont.
L7G 1N4
(416) 877-5844

DI

Kingston

Ms. Linda Rankin
Occupational Therapy Dept.
Kingston General Hospital
Stuart St.
Kingston, Ont.
K7L 2V7
(613) 548-2328

DI, DE, IN



Reliable Driving School
44 Bonnycastle Cresc.
Kingston, Ont.
K7M 2B3
(613) 546-1659

DI

London

Mr. Steve Trujillo
Department of Occupational
Therapy
University of Western Ontario
Dental Services Building
London, Ont.
N6A 5C1
(519) 679-2175

DI

Driver Education Programme
Thames Secondary School
785 Trafalgar St.
London, Ont.
N5Z 1E6
(519) 436-6061 or 434-0268

DI

Mississauga

Sal's Driving Academy for the
Physically Handicapped
23 Cayuga Ave.
Mississauga, Ont.
L5G 3S8
(416) 278-1288

DI

Ottawa

Occupational Therapy Dept.
Royal Ottawa Regional
Rehabilitation Centre
505 Smyth Rd.
Ottawa, Ont.
K1H 8M2
(613) 737-7350 ext. 530

DE, HC, IN

Riteway Driving School
1212 Bank St.
Ottawa, Ont.
K1S 3Y1
(613) 737-5070

DI



ASSISTANCE PROGRAMS AND DRIVER EDUCATION

Sault Ste. Marie

City Driving School
358 Lake St.
Sault Ste. Marie, Ont.
P6B 3L1
(705) 256-5162

St. Catharines

Atlas Business Systems
13 King St.
St. Catharines, Ont.
L2R 3H1
(416) 684-5556

Sudbury

Ms. Judy Frey
Occupational Therapy Dept.
Laurentian Hospital
41 Ramsey Lake Rd.
Sudbury, Ont.
P3E 5J1
(705) 522-2200 ext. 310

Driver Education Programme
Cambrian College of Applied Arts
& Technology
1400 Barrydowne Road
Sudbury, Ont.
P3A 3V8
(705) 566-8101

Thunder Bay

Occupational Therapy Dept.
George Jeffrey Childrens
Treatment Centre
507 North Lillie St.
Thunder Bay, Ont.
P7C 4V8
(807) 622-9122 or 622-7626



Driver Education
Lakehead Board of Education
2135 Sills St.
Thunder Bay, Ont.
P7E 5T2
(807) 628-2122

DI

Toronto

Ms. Margaret Young
Driver Education Programme
Hugh McMillan Medical Centre
— OCCC
350 Rumsey Road
Toronto, Ont.
M4G 1R8
(416) 425-6220 ext. 490

IN, DE, DI

Windsor

C.A.A. Automobile Club
1215 Ouellette Ave.
Windsor, Ont.
N8Y 1J3
(519) 255-1212

DI

Quebec

Montreal Area

École de Conduite technique
Châteauguay
255 boul. d'Anjou
Châteauguay, Que
J6J 2R4
(514) 691-0622

École de Conduite Lachine
Driving School
621 Notre Dame
Lachine, Que.
H8S 2B4
(514) 637-7101

DI



École de Conduite Martin Enr. DI

20 rue St. Jean

Québec, Que.

G1R 1L6

(418) 529-0292

Club Automobile de Québec DI

2600 boul. Laurier

Ste. Foy, Que.

G1V 4K8

(418) 653-1256

New Brunswick

Occupational Therapy Dept. IN, DE, DI, HC

Forest Hill Rehabilitation Centre

180 Woodbridge St.

Fredericton, N. B.

E3B 4R3

(506) 455-3309

Nova Scotia

Occupational Therapy Dept. IN, DE

Nova Scotia Rehabilitation Centre

1341 Summer Street

Halifax, N. S.

B3H 4K4

(902) 422-1787

Halifax Driving School DI

P.O. Box 8861, Station "A"

Halifax, N.S.

B3K 5M5

(902) 454-0672

Prince Edward Island

Occupational Therapy Dept. DE, IN

Queen Elizabeth Hospital

Riverside Drive — P.O. Box 6600

Charlottetown, P.E.I.

C1A 8T5

(902) 566-6111

**Transportation
Development Centre**

Guy Favreau Complex
200 Dorchester Blvd. West
Suite 601, West Tower
Montreal, Quebec
H2Z 1X4